DAILY EDITION

American Gas Journal

Formerly American Gas Light Journal

EST. 1859

VOL. 117. NO. 19
WHOLE NO. 3374 NEW YORK, WEDNESDAY, OCTOBER 25, 1922, ATLANTIC CITY, N.J. Subscription $3 per year $4 Canada $5 Foreign

Lattimer-Stevens

Meter Connections

A manifold installation by the New Bedford Gas & Edison Light Co., New Bedford, Mass., using the new style No. 40 Lattimer-Stevens meter connections. Note the simple but effective combination connection and meter shelf

The Lattimer-Stevens Company

72 YALE AVENUE

New England Representatives:
The Eastern Service Co.
Boston

COLUMBUS, OHIO

Pacific Coast Representatives:
C. B. Babcock Co.
San Francisco

Library of Congress OCT 27 1922 SMITHSONIAN DEPOSIT

Building for the future

Now more than ever before, specialized engineering knowledge and experience are demanded of designers and builders of gas plants. At no other time in the history of gas manufacture has the industry been in a better position to put its business on a firm, economically operating basis, and events of the past year indicate that the gas manufacturer is thoroughly alive to his opportunity.

The gas manufacturer is demanding that those who wish to do business present something which will not only meet the demands of today, but will form the foundation of the rapidly growing business of tomorrow.

The Koppers Company believes that it has correctly interpreted the trend of the times in the gas industry and has something to offer which will meet these exacting requirements.

Our headquarters are at Booth 128

The KOPPERS COMPANY
Designers and Builders of
By-Product Coke & Gas Ovens
PITTSBURGH, PA.

AMERICAN GAS JOURNAL. Oct. 25, 1922. Vol. 117, No. 19. Published weekly by American Gas Light Journal, Inc., New York, N. Y. Entered as second-class matter Jan. 9, 1917, a the post-office at New York, N. Y., under the Act of March 3, 1879.

Daily Edition

AMERICAN GAS JOURNAL

Vol. 117, No. 19 NEW YORK—OCTOBER 25, 1922—ATLANTIC CITY Whole No. 3374

CONVENTION HITS STRIDE AS ALL SECTIONS GET TO WORK

Greatest Gathering of Gasmen In History of Association Is In Full Swing—Elections, Reports and Addresses Feature Opening Day.

The Fourth Annual Convention and Exhibition of the American Gas Association hit into high speed yesterday, and from early morning until a late hour last night the several thousand members in attendance put in their time at various meetings, dinners, conferences or in social congress. Favored by ideal weather, following the unpleasant climatic conditions of Monday, the convention yesterday set its stride and there will be no slowing down until the final general session has been held on Friday morning.

The main feature of yesterday was the opening meeting of the general session, which convened in Convention Hall at the ocean end of the Steel Pier. During the afternoon sessions were held by the Accounting Section, the Commercial and Publicity and Advertising Sections, meeting jointly in Haddon Hall, and the Technical Section. A full and detailed report of each of these gatherings will be found on other pages of today's issue.

The climax of the official opening day was reached last night when a social evening was staged in Convention Hall, attended by members and guests. During the evening several professional dancers added to the entertainment.

Hundreds of members arrived at the resort late Monday night and early yesterday, with the peak of attendance reached during the early afternoon. Up to a late hour last night it had been impossible to determine the exact registration, but it is conservatively estimated there are between 2,000 and 2,500 members of the Association in attendance. The exact figures will be known in time for publication in Thursday's issue.

IS BANNER GATHERING

That this year's convention will go down in history as the banner one so far held is generally admitted by practically every member of the Association present. There is no question but what the exhibition of gas appliances, held in conjunction with the convention, is by far the largest and most complete of its kind ever staged, and all day yesterday the various structures on the Steel Pier in which the exhibits are housed were visited by throngs.

One of the outstanding features of this year's gathering is the spirit of optimism that prevails, and the cordial relations that have speedily been established. Members seem to be vieing with each other to excel in hospitality and good fellowship, and there are few if any complaints to be heard. Members

(*Continued on page* 419)

1923—Chicago or Atlantic City

In the report of the Time and Place Committee, B. F. Lyons stated that in attempting to choose the place for the next convention in 1923, the various sections of the country in which members resided was taken into consideration, as well as the ability of the place, at which the exposition was to be held, to comfortably house the members.

The American Gas Association has outgrown the one or two hotel cities, and the committee therefore has chosen Chicago, with Atlantic City as an alternative, for the 1923 assemblage. The Executive Committee in one of its sessions will decide definitely where the next convention will be held.

Urges Joint Meeting of Carbonization Men

R. H. Burdick Suggests Concerted Action with Electric Men Who Are Interested in Coal Treatment to Save Duplication of Effort in Coal Distillation Work

Some men come to conventions to have a good time, some combine work and fun, and there are a few who come to listen, learn and help. R. H. Burdick, chief gas engineer, Electric Bond and Share Co., of New York, takes conventions very seriously. He has his fingers on 33 operating gas properties, which to use a slang expression, "is some job."

Mr. Burdick has two hobbies, children and gas plants. Since he has only five children and 33 plants you may judge as to which he is fondest of.

"Gas men had better look out," said Mr. Burdick. "A thing has just been brought to my notice which might be construed as hand writing on the wall. Webster's Dictionary in giving the meaning of the word SUPERCEDED says that it means "take the place of," and illustrates with these words: 'Electricity has superceded gas.'

"Now what do you think of that? Are the gas men going to let a thing like that stand or are they going to get out and redeem themselves and make Mr. Webster's successor change his definition?

"I was very much interested in the discussion about single and double sessions at our next convention. I, for one, think the single session the best. Many men want to get everything possible out of this yearly meeting and unless you can cut yourself into two or three parts this can not be done under the present plan. I'd much rather see a good one ring circus any time, than miss 66 2-3 per cent of a three ring one. I hope the convention votes to have only single sessions next year.

(*Continued on page* 418)

Engineers In Initial Session Discuss Carbonization

F. C. Weber Heads Section for Coming Year—Gathering Yesterday Shows How Interest Is Growing in This Branch of the Work

The opening meeting of the Technical Section of the American Gas Association, assembled in convention at Atlantic City, was held yesterday afternoon in Convention Hall, ocean end of the Steel Pier.

The work of the section was covered by a number of committee reports, with the exception of the important subject, "Gas Heat Application." C. N. Chobb, the retiring chairman, emphasized that electrical propaganda must be met by the gas industry for "this propaganda not only is often misleading to the general public, but it tends to inaugurate electric heat application, which, from an economic standpoint should be gas heat application. This condition is to be met not by any comparison of gas versus electric heat application, but by the proper education of the public and of our industrial salesmen."

F. C. WEBER, THE NEW CHAIRMAN

R. B. Harper, chairman of the Nominating Committee, reported the following choice of the committee for chairman and vice-chairman for the coming year: Chairman, F. C. Weber, of New York City; Vice-Chairman, H. C. Wehnert, St. Louis, Mo. They were unanimously elected.

The new chairman made a short address in which he asked for the continued co-operation of all the members of the section in the work to be done during the coming year. He stated his sympathy with the small plant which is unable to obtain expert assistance from recognized experts due to financial reasons, and whose welfare should, accordingly, be one of the cares of the Technical Section. The undertaking of work to aid these plants was advocated.

OCCUPIES MEETING

The meeting was then turned over to L. J. Willien, chairman of the Committee on Carbonization and Complete Gasification of Coal, and the business of the afternoon was concerned with the report of that committee.

In his address Mr. Willien commended the great interest taken by the members of the various committees and by the members of the section in general in the work accomplished during the past year. He recommended that the committee be continued. He called attention to the distribution of the work among sub-committees, of which the Operators' Low Temperature Carbonization and Builders' Sections were in existence last year, and the Complete Gasification of Coal Section was added this year. He advised the continuation and further development of the work of each section.

E. H. Bauer, chairman of the Operators' Section, then took the floor. His address is printed in abstracted form on page 424 of this issue. His report reviewed generally the work done during the year and dealt particularly with the details of making reports on the actual operation of plants so that these reports may admit of proper comparison. He emphasized that there is absolutely no use in collecting a lot of data on operating plants until there were developed standards of weighing, sampling, analyzing, calibrating, etc., so that one plant's results could be equitably and profitably compared with the other. To this end a sample form of report was drawn up and submitted for discussion by Mr. Bauer. The use of standard meters was also advised, but further study of the methods of standardization were left to be worked out b ythe committee during the following year.

The chairman of the meeting then called upon Mr. Morris to read his report on "The Carbonization of Coal with Blue Gas and Water Gas," which is printed on pages 424 and 425 of this issue.

The Low Temperature Carbonization Section then rendered its report through the chairman, J. D. Davis. Mr. Davis' report is to be found on pages 426 and 427 of this issue. Mr. Davis pointed out the importance of low temperature work from the standpoint of the production of motor spirit, which while not yet of economic importance, wil lundoubtedly become important in the future.

J. T. Taussig then made his report as chairman of the Builders' Section. This report is abstracted on page 428 of this issue. He emphasized the importance of the design of the furnace on the results obtained in the carbonization of coal. He stated that important new developments in the design and construction of carbonizing apparatus are looked for in the future.

R. G. Porter, chairman of the Complete Gasification of Coal Section, concluded the regular business of the meeting with his report on the work done by

(*Continued on page* 417)

Held Get-Together Luncheon

For the benefit of two-score members who were not fully acquainted with convention procedure, a luncheon was held yesterday at the Hotel Traymore by the delegation of the People's Gas Light and Coke Co., of Chicago, and details were made clear to the uninitiated. Charles A. Munroe, president of the company, presided. The affair was attended exclusively by those in the service of the company.

How best to get the maximum benefit from a convention was effectively explained by B. J. Mullaney, who showed how an engineer, when there were no sessions in his section could become a better informed gas man by attending gatherings of the commercial and other departments. Other speakers were F. F. Cauley, R. N. Davis, J. H. Eustace, R. B. Harper, C. A. Luther, W. A. Sauer.

Those who attended the affair were: T. V. Purcell, G. C. Lowell, H. E. Bates, G. E. McKana, J. E. Davies, G. F. Mitchell, A. L. Tossell, J. M. Roberts, William Wurth, A. J. Peterson, G. H. Kallstedt, H. H. Clark, E. S. Beaumont, G. A. Lane, John Zander, L. B. Elliot, J. F. Weedon, F. M. Gocke, G. C. Carnahan, John Thomson, J. B. Craven, J. J. Murphy, W. I. Coble, F. E. Dunning, C. C. LeForge, A. H. Thorn, Hal Lytle, P. A. Warren, A. W. Chapman, Miss Julliane Doane and H. T. Hirst.

Novel "Movie" Display Device

For novelty and originality in an attractive display idea, which is, at the same time, sufficiently dignified and conservative to attract the big business man, it would be difficult to surpass that of the Roberts Brass Manufacturing Co., of Detroit, Michigan. It consists of a tall box-like frame similar to the shadow-boxes used to display rare paintings, in the focal center of which the products of the concern are exhibited one by one in a novel manner, and under a powerful light so that the articles are made to stand out in beautiful contrast to the large expanse of black velvet surrounding it. Every few seconds the light goes out and when it turns on again the first article has disappeared and another has taken its place.

The device is the idea of E. Roberts, vice-president and manager of the company, and was developed by the mechanical staff of the company.

Change Methods of Charging for Gas Urges Commissoner Jackson

Opening General Session Shows Enthusiasm of Gas Men—Many Reports Presented—Association Growing Stronger Financially and Numerically

Addresses and reports of vital interest not only to the Association but to the gas industry at large, ably rendered, featured the opening general session yesterday morning. It was shown that since the last Convention there has been a marked membership increase and that never before have Association finances been so substantial. R. B. Brown, Milwaukee Gas Light Co., Milwaukee, Wis., was elected A. G. A. president for 1923, and John Bartleman Klumpp, United Gas Improvement Co., Philadelphia, vice president for the ensuing year.

Decided changes in present methods of charging for gas service to conform with numerous changes in the uses of gas that have recently developed were advocated by Carl D. Jackson, president of the National Association of Utility Commissioners, and chairman of the Wisconsin Railroad Commission.

"The future of the industry as well as the future good service to customers demands an enlightened public policy and fair public dealings which necessitates rate schedules which shall not be discriminatory as between different classes of customers," Mr. Jackson declared, "but which will distribute the burden equitably among them and insure development along lines of greatest use and public convenience."

The speaker pointed out that apartment house dwellers of the well-to-do class use but little gas and are thereby increasing the general cost of gas service, thus forcing up rates. He said that this class of consumer is increasing rapidly in the large cities and instead of tending to lessen the costs of gas distribution, they are making distribution more costly. Efforts should be made, Mr. Jackson said, to overcome the unreasonable burden placed on the average gas user to make up the loss incurred by wealthy class service, for unless the rich consumer is compelled to pay his just share of general distribution costs the rates will have to be forced higher and higher.

ADVOCATES SLIDING SCALE

For large industrial users Mr. Jackson advocated a rate that automatically varies with the cost of manufacture and does not require the delay and expense of a determination by the regulatory bodies whenever material change takes place in the cost of operation.

"Our business in all its branches needs humanizing," President Dana D. Barnum asserted in his address, which is presented in full on page 429 of this issue. "The education and training of our employees is the key to our successful operation and dealings with the public and I am in favor of sending employees to college as we are doing in Boston. There are 400 men of the Consolidated Gas Company of Boston attending Boston University two hours a week and they are studying business principles and ethics, the gas company's place and its relation to the community; salesmanship, public relations, courtesy, good will and industrial relations.

RESPONSIBILITY BRINGS RESULTS

"When companies were combined and large corporations formed, operations were conducted by rules and regulations laid down by executives," Mr. Barnum continued. "Superintendents and foremen had little leeway in dealing with people under them, and naturally labor unions, grievance committees, walking delegates and delegations resulted. The average workman wishes to consider himself an individual and not one of a mass. Small companies with an executive who knows all the men seldom have serious labor troubles. I believe that industry as a whole has made the mistake of not giving more responsibility to foremen and superintendents. One of the principal factors of this is the provision provided for advancement of men showing merit, and makes for a much improved general morale.

"I believe that education begins at home," Mr. Barnum said in referring again to sending certain men to college. "In giving our employees this opportunity we are providing the best means for educating our customers and the public and of putting over our business more solidly upon the foundation of public understanding and good will. It is the human touch, the personal element that counts in conducting the best business operations, and when this is taken into consideration success is bound to result in no small measure."

ASSOCIATION GROWING

A gratifying increase in membership for the past year was shown by the well presented report of Secretary-Manager Oscar H. Fogg. On September 30th last, the end of the Association year, there were 472 gas companies, 17 holding companies, 236 manufacturing companies, 2,066 individuals and two honorary members of the A. G. A.

"The steady growth in company membership, in both gas company and manufacturer classes, is the best possible indication of the strength of the Association and its recognized position in the industry," said Mr. Fogg. "The Association is now truly national in scope, and as the smaller companies approach a solution of the financial problems that have beset them in the past several years, we can logically hope for a continued increase in membership."

The Association's sectional organization increased its enrollment considerably during the year. The strength of the five divisions at the close of the year was: Commercial, 1,756; Technical, 1,765; Accounting, 1,371; Manufacturers, 1,272, and Publicity and Advertising, 1,130. Much valuable work was done by the sectional divisions, the report showed.

"Through the efforts of our Committee on Cooperation with Educational Institutions a number of lectures on gas business have been delivered before student classes in various colleges, universities, etc.," said Mr. Fogg. "It is felt that in this very practical way interest in the gas business is being created among these young men and that our industry will appear far more attractive to them upon graduation. Satisfactory progress has been made in educating the general public."

ASSOCIATION DEFENDS INDUSTRY

Secretary Fogg's report emphasized the increase in the importance of the national work of the Association in the interests of the gas industry. Last year's tax program, he pointed out, has been vigorously advanced and the enactment of legislation prohibiting the further issue of tax exempt securities have won the endorsement of President Harding and Secretaries Houston and Mellon. Among the accomplishments was the opposition to the proposed tariff on oil, and the prompt action taken in the coal emergency.

In concise and effective manner the financial statement of the A. G. A. for the past year was delivered by Treasurer H. M. Brundage, who was re-elected to that office at yesterday's session. According to the report the organization's gross income for 1921-1922 was $259,128, of which $240,442 was spent for the numerous Association activities. With the balance, cash on hand from the precedng term and assets, the funds of the A. G. A. amount to $109,065.19.

The advantages of having a member of the A. G. A. a director of the United States Chamber of Commerce so that the gas industry would have a voice in

(*Continued on page* 419)

G. A. HOWELL

"Round the Clock With Gas" Is Good

Association Has Thousand Foot Film That Should Prove Beneficial to the Gas Industry

NOTE: Mr. Edwards, who at the request of the American Gas Journal, wrote the following review of the Association's motion picture, "Around the Clock With Gas," is an expert on screen productions, and viewed the picture from the standpoint of its appeal to the general theatre-going public, and its entertainment value.—THE EDITOR.

By JACK EDWARDS
General Manager W. K. Ziegfeld Picture Enterprises

"Around the Clock With Gas," a thousand foot motion picture produced for the American Gas Association by the Visugraphic Company, of New York, has much appeal to men actively engaged in the gas industry, but aside from the members who viewed its presentation on the Steel Pier yesterday at noon, it is doubtful if it will be seen by any great number of persons. From the standpoint of entertainment and public appeal, it is lacking in many essentials. There will be few motion picture exhibitors who will care to make it a part of their program, excepting, possibly, theatre managers who make a practice of running advertising film, for which they are liberally recompensed.

This motion picture is in reality a series of animated scenes, dealing with the gas industry, and is frankly propaganda. The photography is above the ordinary, there being several night scenes which stand out prominently. No attempt was made to construct any sort of a connected story, and continuity, consequently is entirely lacking. Nevertheless, the reviewer, basing his opinion on the commercial possiblities of the production, is of the belief that from the gas man's standpoint, the picturization presents visible evidence of the enormous growth of the gas industry since the first customer was supplied in 1816 (according to a sub-title).

The man who directed "Around the Clock With Gas" for the Association, unfortunately overlooked some exceptional opportunities to inject interest in the film. For instance, a sub-title calls attention to the largest gas holder in the world, with a capacity of 15,000,000 cubic feet, but entirely overlooks the small detail of where this gigantic holder is located. It may be in Atlantic City, or again it may be in Blue Ridge, down in Georgia. Of course the average gas man who views the picture will probably be acquainted with the location of this tank, but not so with an ordinary motion picture fan. Consequently, he will not have the interest in the subject that he would should it so happen that the giant holder was located near his home town—and he be so informed by the film sub-title.

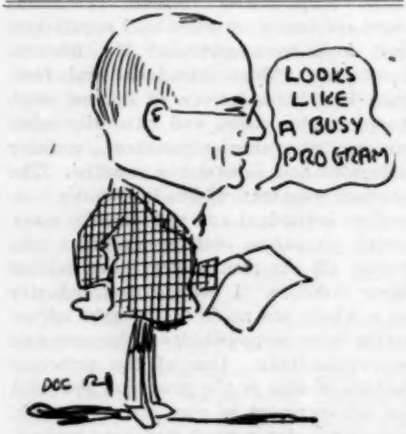
And yet, the writer is bound to admit that the gas men who saw the screening yesterday noon were more than interested, in fact, there was quite some applause at its conclusion. The only attempt at comedy is shown in a scene to designate the difference between the modern town and the one-hourse town that does not enjoy a gas service. The despair of a housewife, who has just hung out her washing, only to have it covered with soot and cinders, is humorously pictured, and drew a hearty laugh from the convention members yesterday.

The opening sub-title, "The Flaming Torch of Industry," aptly describes the series of photo animation that follows. Some of the scenes portray a coal mine in operation, an oil gusher, retorts, the feeding of coal into retorts, a laboratory "where man seeks nature's secrets," a series of views of gas by-products, gas workers leaving a factory, homes, a "town that is with out gas is without life," modern gas appliances, including the actual use of gas in home, bake shops, laundries, automobile repairing, confectionaries, newspapers and other industries.

Most of the sub-titles are statistical,

(*Continued on page* 419)

PAT GOODMAN



T. C. RADCLIFFE

O. P. SMITH

E. CLAUS

"DAVE" COLLINS

Gasmen at Rotary Club Luncheon

The regular weekly meeting of the Atlantic City Rotary Club was held in the Grill at the Alamac Hotel Hotel Tuesday at noon. Many visiting gas men are Rotarians and they were invited to the luncheon.

It was a very informal meeting. After a cordial welcome to the visitors the regular weekly program was followed. The talks were on current topics and were handled in a brief, but extremely interesting manner. The gasmen, as usual, spoke illuminatingly.

Gas Industry In the South Booming

Just a minute's talk with J. W. Golden, Vice-President of the Savannah Gas Company, served to register the genial Southerner's optimistic feeling that things are very good down in Savannah and that there is a well-found hope for a general improvement all around.

W. F. WEADLEY

Golfers Were Busy Yesterday

The three G's, which in good English means Golfing Gass Gang, were out in full force Tuesday afternoon. The Seaview Golf course was dotted with them. They drove, approached and putted to their heart's content. Among them were A. P. Macbeth, Los Angeles; Charles Dickey, New York; Harry Norton, Boston; C. T. Hall, Pittsburgh; C. J. Ramsburg, Pittsburgh; J. S. DeHart, Jr., and William Schebler, both of New York.

Macbeth and Norton won from Dickey and Hall by two points. The game was hole for hole up to the eighteenth, when the Los Angeles and Boston players, by a display of steady nerve, coupled with some remarkable shooting, took the last hole and won the match.

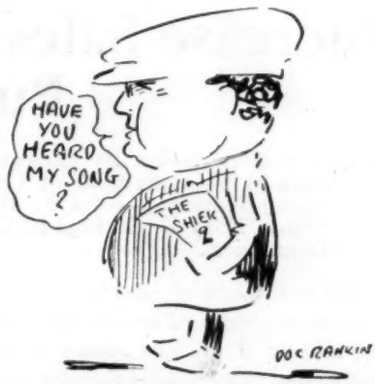
J. S. DeHart, Jr., and William Schebler are said to have played much above their usual game, Mr. DeHart getting a 65 and Mr. Schebler a 67. They will play the second hole tomorrow.

M. C. FOX

H. B. Fiske Reports Big Increase

H. B. Fiske, merchandise manager of the Public Service Company of Northern Illinois, reports an increase of eighty per cent. in the appliance business of that concern in recent months, with an outlook that indicates a still greater increase.

Mr. Fiske declared that the present convention exhibition is by far the best he has attende, and that in his opinion it would be difficult to find a location with equal advantages for spacious and comfortable display, to that afforded by the pier at Atlantic City. He expressed the hope that future exhibitions might be held here.



GEORGE CRESSER

Swallow Gives Gasmen "Once-Over"

At the moment when R. B. Brown and J. B. Klump were being unanimously selected to guide the destiny of the A. G. A. during 1923, a diminutive swallow, pausing no doubt in its long seasonal journey South, flitted through one of the windows of the auditorium and perched on the coping above the speakers' rostrum. The tiny bird chirped a bit and then hopped onto a bunting, where it approvingly scrutinized the spectators.

So engrossed were the delegates in the interesting session that few noticed the bird, and it, after a brief visit, flew back to the window and out over the broad Atlantic, headed South, thoroughly pleased with itself. It was the concensus of opinion of those who take heed of tokens that the entrance of the befeathered visitor was the best kind of an augury for a bright and successful year for the Association and its able officers.

Ralph Hayward and Tommey Thompkins, known as "The Heavenly Twins of New England," brought their line of comedy stuff to the convention with them.

C. N. WAGENCELLER

Increase Sales With Publicity, Is Urged

Business Stimulation By Means of Advertising Advocated to Members at Joint Session of Commercial and Publicity and Advertising Sections—John F. Weedon Reads Crackerjack Paper on "How They Do Things in Chicago," Which Results in Animated Discussion.

The stimulation of sales through the medium of advertising and publicity was the keynote of the joint session of the Commercial and Publicity Sections, held in the Vernon Room at Haddon Hall yesterday afternoon. It was the opening session of these sections, which, because of their close alliance, are holding joint meetings with members of both divisions joining in the discussions. Reports of committee chairmen and a paper on advertising, together with the formal election of the heads of both sections for the ensuing year, and spirited and educating discussion of the various themse made what proved to be one of the most interesting and instructive sessions of the convention. The joint meeting was attended by a crowd that taxed the capacity of the Vernon Room, and at its conclusion stress was laid upon it being without doubt the most enthusiastic gathering of its nature in the history of the Association.

A. P. Post, of the Interstate Appliance Corporation of Philadelphia, in his capacity as chairman of the Commercial Division, presided over the destinies of that group, while the Publicity and Advertising Division business was under the supervision of its retiring chairman, A. A. Higgins, of the Providence Gas Co., of Providence, R. I.

The report of the Commercial Division Nominating Committee, recommending the election of Vice-Chairman William Gould, of Boston, as chairman of the division for the ensuing year, and James E. Davies, of the Peoples' Gas Light and Coke Co., of Chicago, as vice-chairman, was unanimously adopted.

MULLANEY IS ADVANCED

For the Publicity and Advertising Section Chairman James P. Hanlan, of the Nominating Committee, read that body's report, which resulted in the selection of B. J. Mullaney, of Chicago, the present vice-chairman, as chairman for the coming year, and the election of James M. Bennett, of Philadelphia, as vice-chairman, both of which elections were forecast in yesterday's edition of the Daily American Gas Journal.

In a brief speech of acceptance, Chairman-elect Mullaney stated he was more than gratified to say that yesterday's session was the best attended and the most instructive ever held, and in concluding said he would try to carry on the good work for the next year.

Vice-Chairman Gould, of the Commercial Section, read an interesting report on "Sales Stimulation," with added comments, the full text of which will be found on Page 421 of today's issue. Mr. Gould's recommendations brought forth some interesting comment from G. M. Karshner, of the Consolidated Gas Co. of New York, who said among other things that in New York a campaign on gas lighting sales is being carried on practically the year around. He insisted that the gas men must stay on the job of selling gas appliances and introduced some valuable data with reference to New York methods of sales results.

HIGGINS MAKES REPORT

The report of the retiring chairman (Mr. Higgins) of the Publicity and Advertising Section outlined in detail the manner in which gas publicity was being handled by his section and told of eight groups through which concerted efforts are now being made. The text of Mr. Higgins' paper will be found on Pages 431 and 432 of today's issue.

What was undoubtedly one of the most illuminating and thoroughly interesting and comprehensive discourses on gas and appliance advertising and publicity was a paper by John F. Weeden, superintendent of The Peoples' Gas Light and Coke Company of Chicago, whose theme was: "Advertising to Stimlate Sales of Merchandise and Appliances." A sub-title for the paper might well read: "How They Do It in Chicago." Mr. Weeden made a strong plea for newspaper advertising, declaring it the most obvious method, and urged that newspaper space should be used continuously throughout the year. Concerning supplementary advertising, Mr. Weedon detailed the following medium: Fences and holders, bulletin boards, trucks and wagons, catalogs and books, advertising on gas bills, company stationery, street barriers and the "decal" sign, display windows, window

(*Continued on page* 418)

A.G.A.'s Financial Condition Fine

Report of H. M. Brundage Shows a Steady Growth in the Organization's Income and Also Improvement in It's Financial Condition.

The financial condition of the American Gas Association, as presented by H. M. Brundage, treasurer of the organization, gave the members an idea of just how an association should be run. To be exact, the policies of a large corporation should be followed to the "T."

Total receipts for the entire year, inclusive of the $30,800 balance at the end of the 1921 fiscal year, were in round figures, $259,128. As against this, expenditures for the entire period totalled $240,441, leaving a cash total of $18,687.

The balance sheet of the American Gas Association was a portrait of strength. The assets, including Liberty Bonds of $54,818; library, $18,108; cash, $18,687, and other items total $109,576,63, as against one liability, accounts payable, equalling $511.47. The surplus and working capital in full are $109,065.16.

Mr. Brundage, who has been treasurer of the Association for a number of years, may be complimented on the way in which he has managed the finances. The organization is now in an exceptionally strong position, and many corporation officials would do well to follow the conservative plan adopted by the treasurer of the American Gas Association.

In his remarks, covering the report, Mr. Brundage stated that during the 1923 fiscal year, increased expenditures may be anticipated, due to the coal emergency. The inception of an additional educational organization will incur further expense, while the Association's pledge to expend funds for motion picture films will cause an additional outlay, he said. However, all of these should result in furthering the plans of the Association.

Herbert A. Cummings, doorkeeper at the Steel Pier, knows a delegate by his looks, whereas less sagacious persons distinguish between delegates and fishers and "sunners" by, respectively, their badges, their baskets, or their bags of knitting. Mr. Cummings says he "passes in" about 1,000,000 human beings to the Steel Pier every year and ought, therefore, to know a little bit concerning looks and the significance of

H. G. MENTZER

Guardians "Cosy Corner" Popular

One of the "warm spots" on the pier is the Guardian Gas Appliance Co.'s exhibit, where several of their fireplace heaters send out a warm and attractive glow, presided over by F. A. Nieberding, president, and S. E. Chubbuck, sales manager, whose genial welcome adds to its popularity.

"Some of our fellow exhibitors nearby, declare that they will have to install one of our heaters in their spaces in order to compete with us in securing the attention of the crowds visiting this building," said Mr. Chubbuck, when this was called to his attention. "We are working night and day to keep production up to our demands and we look forward to one of the best years in our experience."

S. E. FAIRCHILD, Jr.

A Stage Display Idea

"Look at the tableau" is the remark made by most of the ladies on coming in sight of the novel stage display that the Roberts & Mander Stove Company, of Philadelphia, have erected at the back of their space. In the center of a perfect little stage surrounded by foot and border lights appears one of their "Quality" gas ranges sparkling in white enamel and nickel. The onlooker almost waits for the curtain to fall and then rise again on the next scene. This corner, presided over by John Dains and C. L. Lyons, is one of the most attractive and most popular corners in the hall, and Mr. Dains has always a fund of good stories to tell and a good sized audience to listen to them.

J. G. WAY

Young Predicts Larger Gas Consumption

"The manufacture of gas stoves is the best barometer of business conditions I know," said L. B. Young, who is here in charge of the large exhibition of Garland Hotel Ranges.

"When the stove business is good, it is a sign that business generally is good and our business has never been better than it is today.

"From authentic information we have in hand, there are over one million new homes being built in the United States today—a large percentage of which are in the gas cities of the country.

"This is the home building peak of the country with 1923 promising even greater heights, and if our gas stove orders can be taken as an indication, practically all these new homes expect to cook with gas."

R. L. KAHLE

A "Miracle" In Miniature

While Moses may have made water flow from out of a barren stone, as recorded in the Bible, it remained for the H. Mueller Manufacturing ompany, of Decatur, Ill., to make water flow in a continuous stream out of a totally unconnected faucet suspended in mid-air. If you do not believe it can be done, visit their exhibit and see it with your own eyes. So much attention has been attracted by the novel display device that Messrs. R. . Kirchner, L. J. Evans and J. W. Simpson, territorial representatives, are kept busyanswering questions regarding it. Several requests have been received from dealers for permission to use the idea for window displays to push the sale of hot water heaters, and some such plan may be evolved by which the device may be supplied to dealers for display purposes.

A. G. HOLMES

The Eternal Feminine by Betty Bennett

Registration opened up full blast, as those gas furnace men you see all around would say, Monday and is still going strong. Women seem to be showing up from all over the United States and Canada. For instance, there is Mrs. J. Brombacher from Los Angeles, California. Wonder if she takes her Sunday Times to Westlake Park to read it there as everyone in Los Angeles seems to and goes to Grauman's motion picture theatre every week to hear the 76-piece symphony orchestra and see Will Rogers, when she is home?

From Toronto, Canada, comes Mrs. J. J. Armstrong. Here's a tip: If you're planning that trip up the Thousand Islands you've wanted to take for years, ask Mrs. Armstrong. She'll know all about it, whether to take in Montreal and Quebec or to go up and return without stops.

From New York City are Mrs. F. R. Barwitz, Mrs. W. C. Beckford and Mrs. C. W. Berghorn, Jr. If you run across them, find out if they registered in order to take part in the coming fight as to whether Mr. Miller spent two bits more in running the government or visa versa. Mrs. A. L. Fish and Mrs. David M. Evans might have something to contribute, for they are from Brooklyn.

From registration results it looks as if there were almost as many women here from Chicago as from a city as near as Philadelphia. Mrs. Robert Harbor, Mrs. J. H. Eustace, and Mrs. J. E. Davies are among the nice persons from Chicago, and Mrs. E. L. Heyser, Mrs. H. Hoffman, and Mrs. W. H. Fulweiler are some of the many likable representatives of that City of Brotherly Love.

Others who were seen registering include Mrs. J. A. Frick, Allentown, Pa.; Mrs. John H. Gibson, Cincinnati, Ohio; Mrs. E. Haase, Milwaukee; Mrs. O. T. Haddock, Cambridge, Mass.; Mrs. I. S. Hall, Boston, Mass.; Mrs. H. Herman, Newark, N. J.; Mrs. A. A. Higgins, Providence, R. I.; Mrs. G. B. Hodges, Williamsport, Pa.; Mrs. B. A. Hangerford, Pittsburgh, Pa.; Mrs. W. E. Byrne, Atlantic City, N. J.; Mrs. H. R. Brownell, Detroit, Mich.; Mrs. Frank Crukshaut, Decatur, Ill.; Mrs. F. R. Cutchinson, Long Branch, N. J.

Cooks and Gas Companies in Co-Hoots

Out in Chicago there is a woman, Mrs. Anna J. Peterson, who is very much interested in domestic science, an expert in her line. She believed that homemaking and home-cooking were fast becoming lost arts. Some one stumbled upon the happy solution that it was up to the gas companies to take the American woman back to the wholesome conditions before the war, which made wage earners out of home makers. As a result Mrs. Peterson has been sent way to Atlantic City by the Peoples Gas Light and Coke Company of Chicago with whom she is now associated. She will give a cooking demonstration this morning and also tomorrow morning. Thursday afternoon at 2.30 she gives an address at one of the regular sessions. It's to be held in the Vernon Room, Haddon Hall, and its subject is "Relation of Home Cooking to Gas Sales." Women as well as the men are planning on going.

"We no longer have a gathering place for the family," says Mrs. Peterson. "The only time the typical family gathers together is at meals. This is the poportunity for the influence of the parents to be felt, and if meal time means eating cold food from the delicatessan or carrying a tray in a cafeteria, the most valuable means of training is overlooked."

The war, she claims, specially affected the girl who is at present between 18 and 25, who because of leaving the home and perhaps school to become a wage earner is now without knowledge of cooking.

Today's Schedule for the Ladies

Cooking demonstration from 10-12 by Mrs. Anna J. Peterson in the auditorium, second floor, Steel Pier.

Luncheon and card party at the Seaview Golf Club. Busses leaving Haddon Hall at noon.

Evening open.

WHAT ONE WOMAN WRITES HOME TO HER NEXT DOOR NEIGHBOR

Tuesday,

Dear Nell:

Oh, it's wonderful! Really it is. Of course, I mean the exhibition. The rooms are a mass of blue and yellow bunting overhead with palms and ferns and flowers all through the separate booths. You'd never dream that you were in the midst of an exhibit of gas appliances.

Some of the booths are lovely, all fixed up like rooms. My pets were those with gas fireplaces, but every time we came to one Harry would say, "Now, now, Hat, move on. You can't have a fireplace this year. There's no use looking at them." But between you and me, Nell, I have the one all picked out that Harry is going to give me for a Christmas present. You know how he always fumes when I want something, but—

Harry and I are both interested in gas stoves. There are all kinds, black ones, white ones, gray ones, big ones, little ones. You sure can get what you want, but it's almost as hard to choose from all those you like as it is when you're buying clothes. Gracious, I'll be glad not to have to wait for a coal range to heat this winter. And it is so hard to get coal. Give me gas any day! I'm glad Harry agrees. Before long I'll let you sample those pop overs I've talked about so much, but never made because it took so long to get my oven hot before breakfast.

There were a lot of specialty gas stoves, for instance, one that would cook 1,500 doughnuts in an hour. Isn't that interesting? Some of those big bakery ovens sort of fascinated me. Some of the booths contained regular furnaces. You know, those used in confectionery stores and the like.

Your gas ironing machine is old-fashioned now, Nell! Imagine, they have them now with thermostat control. I promised Harry I wouldn't burn any more of his shirts if he'd buy me one. "No," he said, "when they are all burnt now, how could you?" The brute.

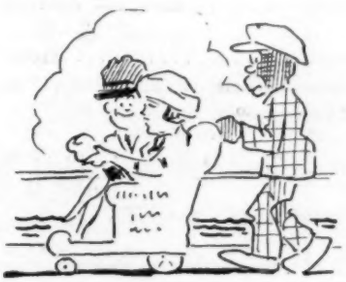
(*Continued on page* 419)

GAS

There was once a handsome, nervy youth
Of twenty years or more,
Who sold the stoves and heaters
In a Gas Appliance store.
He dressed in latest fashion
From his head down to his toes;
How he did it on his salary
He and Heaven only knows.

One October, 'twas in twenty-two,
A little trip he took
With the idea deeply planted
That an heiress he could hook.
He went to Atlantic City
Where the Gas men that year met
And he looked them over carefully,
He didn't miss a bet.

He met one little maiden
Who simply was a dream,
As appetizing, this girl was,
As peaches, yea, and cream.
He knew that if he won her
He would have to use some gas,
So he threw away his meter
And he polished up his brass.



He told her of a fortune
That his dear old daddy had,
Of expensive whims and fancies,
Of his every little fad.
He spun the yarn so nicely,
With such sincerity and grace
That the maiden fairly wondered
How she'd ever caught this ace.

Now she was just as foxy
As a flapperine can be
And at telling fairy stories
She was just as good as he.
She told h m of her chances,
Of her home—and diamonds rare,
Which she wouldn't th nk of wearing
While these poorer girls were there.

He believed her little story,
Just as she'd believed his own,
So they had each other thinking
That they each had won a home.
The convention, soon, was over,
They must say good-bye and part,
How he longed to undeceive her,
But he didn't have the heart.

He made one mighty effort,
Succeeded, yes, and more,
For he told her of the ranges
In the Gas Appliance store.
For a moment both were silent,
Then she said, with voice quite clear,
"Why, I'm in Discontinued Service,
Strange I haven't met you, dear."

SYD.

WHAT TO DO TODAY

Program

GENERAL SESSION

(Convention Hall—Ocean End of Steel Pier)

WEDNESDAY MORNING, 10 O'CLOCK

Report of Committee on Rate Structure
J. D. Shattuck, *Chairman*
Philadelphia Suburban Gas and Electric Co., Chester, Pa.

Address, "Public Relations"..... J. S. S. Richardson
City Editor Philadelphia *Public Ledger*, Philadelphia, Pa.
(Presented for Publicity and Advertising Section.)

Address..... Hon. W. D. B. Ainey
Chairman Public Service Commission of the Commonwealth of Pennsylvania, Harrisburg, Pa.

Report of Committee on Accident Prevention
Charles B. Scott, *Chairman*
Bureau of Safety, Chicago, Ill.

Report of Commission on Resuscitation from Carbon Monoxide Asphyxiation..Dr. Howard W. Haggard
Of the Laboratory of Applied Physiology, Yale University New Haven, Conn.

For the Commission..... Dr. Yandell Henderson

ACCOUNTING SECTION

(Auditorium—Second Floor Steel Pier Boardwalk Front)

WEDNESDAY AFTERNOON, 2.30 O'CLOCK

Customer Accounting in the Smaller Utility
W. G. Murfit
Bucks County Public Service Co., Newtown, Pa.

Address, "Uniform Classification of Accounts for Gas Corporations with Special Reference to the Requirements of Public Utility Commissions"
Geo. C. Mathews
Chief Statistician, Railroad Commission of Wisconsin, Madison, Wis.

COMMERCIAL AND PUBLICITY AND ADVERTISING SECTIONS

WEDNESDAY AFTERNOON, 2.30 O'CLOCK

Address, "Automatic Water Heating". C. E. Bartlett
President-Manager Bartlett & Co., Inc., Philadelphia, Pa.

Address, "Why Gas Companies and the Plumbing Trade Should Cooperate and How". Wm. J. Woolley
Manager The National Trade Extension Bureau, Evansville, Ind.

Address, "Salesmanship in Public Relations"
E. J. Cooney
Sales and Service Manager Lowell Gas Light Co., Lowell, Mass.

TECHNICAL SECTION

(Convention Hall—Ocean End of Steel Pier)

WEDNESDAY AFTERNOON, 2.30 O'CLOCK

Report of Committee on Distribution Design
R. C. Cornish, *Chairman*
American Gas Co., Philadelphia, Pa.

Paper—"Further Presentation of the Doherty Ideal Distribution System"..... R. G. Griswold
Chief Technologist H. L. Doherty & Co., New York, N. Y.

Report of Chem c mittee
Dr. J. F. Wing, *Chairman*
Boston Consolidated Gas Co., Boston, Mass.

Report of Committee on Deposits in the Gas Pipes and Meters..... R. L. Brown, *Chairman*
Bureau of Mines, Pittsburgh, Pa.

General Topics for Discussion.

UN—CONVENTION—AL

"Atlantic City is the place to hold the convention," W. E. Steinwedell, secretary of the Gas Machinery Company, of Cleveland, "will tell the world."

"Somehow the 'gang' hangs together here mor cosy than in othr paces. It's It's easier to find people, easier to keep them together. Even now—it's a little late in the year as I regard Atlantic City I favor Atlantic City as THE convention city."

It may be that certain golf links afforded by the "world's playground" affect Mr. Steinwedell's opinion. At any rate, he is reputed to play the golf for the crowd that is at the convention to represent the Gas Machinery Company of Cleveland—and it's quite a party as measured by the personometer that grades the qualities which draw and hold.

Besides Mr. Steinwedell, President P. Plantinga and Vice-President Charles H. Printz, of the company, are here.

It is notworthy that the company is specially proud to exhibit in the "gas show" because it offers two new contributions to the industry, according to Mr. Steinwedell. They are an automatic water gas control and a motor driven pressure regulator.

At the booth of George M. Clark & Co., division of American Stove Company, are I. W. Peffley, Charles Young, Frank Humphrey, George Velte and John B. Brown, form New York; E. B. Martin, from Chicago. Hy Moeckler, superintendent of factory, and Bob Thompson, department head of factory. R. K. Clark, assistant superintendent of factory, is expected to spend one day at the convention.

The family cat of Johns-Manville is naturally made of asbestos, according to A. B. Spaulding, manager of public utilities department of Johns-Manville, in Chicago. Besides holding Mr. Spaulding and the family cat, the Johns-Manville booth at the convention is headquarters for J. J. Green, general manager of public utilities department at New York; W. H. Ehlers, engineer of public utilities department; H. Rinehart, of the New York office, and R. J. Stewart, manager of the public utilities department at Chicago.

Rather an unusual feature is to be found in the booth of the Isbell-Porter Company, of Newark—an "almost life-size" portrait of the steamship Leviathan. The big liner has nothing to do with the gas industry, but she is being equipped with Peabody oil burners, manufactured by the Isbell-Porter Company, which has a great deal to do with it. In the booth are also some shifting scenes Memory is in charge of the booth.

R. A. Foley, superintendent of construction of Semet Solvay Company, has joined C. R. Bellamy and J. L. Landt at the company's booth. Mr. Foley laid out the model of the Semet Solvay gas plant, forming the major portion of the Semet Solvay exhibit.

Familiar Figures at the Convention

'The Drop of Automatically Heated Water Will Wear Away the Stone'

Frank Lemke Is Strong Advocate for Persistent Advertising of Slogan: "Heat Water With Gas!"

F. A. Lemke, of the Humphrey Company in this broad country of ours has mazoo, Mich., is a live-wire. He looks like one, he acts like one and he talks like ten of them. When he was asked the question: "Can the industry make water heaters as popular as ranges?" he answered, "Yes, yes, yes, certainly it can."

"How?" he was asked. "Listen," said Mr. Lemke.

"For years and years every gas company in this broad country of our has pounded home the slogan, 'Cook With Gas.' They put it in the newspapers, they plastered it on the billboards, they flashed it on the screen and they talked it morning, noon and night. Result: The psychology of print and the oft-repeated spoken word soaked into the housewife's mind and today she cooks with gas. Does she think about comparative costs? She does not. All she thinks about is that she can prepare a meal without the old preliminary trouble of getting kindling, carrying coal, getting her hands dirty and sooty starting a fire and then waiting for a stove to get hot. In other words, cooking with gas is a former luxury which has changed to a necessity.

"What the gas range industry did, the water heater industry can do. Approximately five thousand men are employed in making heaters, over ten million dollars are invested in plants. Ours is not a small, crawling infant industry, it's a big, man-size business. It can talk and when it begins to say 'Heat Water With Gas' over and over again, when it adopts a slogan and drives that slogan home, then will the housewife stop figuring a little thing like comparative cost and make hubby buy an automatic heater, just as she made him buy a gas range, a Victrola and an automobile. Don't misunderstand me. The automatic heating of water by gas isn't expensive. Its cost is not prohibitive. It is within the pocket reach of families with small incomes and therefore it should be universal. Convenience, not cost, is the byword of the American home today, it is the byword of our lives. It costs more to drive a car than it does a horse, but the auto factories are working overtime. It costs more to operate a train than it did to run the old stage coach, but the only time we see a stage coach now is when the Wild West Show comes to town.

"Cold water is a thing we get without thought. We turn a knob and there it is, day or night. If we turned that faucet and cold water didn't issue forth we'd almost drop dead. It's a foregone conclusion that it's in the mains, it's in the pipe and we're going to get it by turning that little piece of metal. Hot water is as important, as necessary as cold. We should get it without thought, without effort. Turn the faucet and out it should come. Why should a woman say 'It costs more to have water in your house than it did to carry it in from the well, but it's such a conveience to have it where and when you want it,' and then why in the name of common sense will she turn right around and say 'automatic gas water heating costs a little more than the other kind and I think I will try to get along without it.'

"Automatic water heating is the 'electric light,' other heating is 'candles and kerosene.'

"All we have to do is to educate our public.

"Let Mrs. Smith adn Mrs. Jones know what she is missing and then the Automatic Water Heater Industry will burst into full bloom and bring forth the fruit. 'Heat Water With Gas,' that the slogan. Keep it always with you, at breakfast, at lunch, at dinner, working or playing, keep pounding and 'the drop of automatically heated water will wear away the stone.' "

"Governor" Happy

Just about the happiest man at the convention is S. F. Hayward, usually known as "Governor," because he is head of the Connelly Iron Sponge & Governor Company. Mr. Hayward says he gets more fun out of conventions than anybody else in the world, and he ought to know for it is asserted that he never misses one.

"But we don't have enough of them," he complained. "We used to have one every little while—state and sectional conventions, you know, with lots of fun."

Mr. Hayward is one of the best known figures in the industry, in which he has been active for 40 years. His three sons—Sterling, Ralph and Harold—now run the business, according to the "Governor," while he takes it easy.

Fulweiler Awarded Grasselli Medal

Gas Men Learned Yesterday of Honor Bestowed on Popular Member of A. G. A.

Gas men were interested to learn yesterday that on Friday, October 20, W. H. Fulweiler, of the United Gas Improvement Co., chairman of the Refractory Materials Committee, and the gas industry in general, as the medalist modestly puts it, were honored by the award of the Grasselli medal, which is bestowed each year on the man who writes the most meritorious article on a problem in the chemical or allied industries. The conferring of the medal took place at the Chemists' Club in New York City. Mr. Fulweiler has devoted his entire life to the study of gas problems, and although young in years he has already made his influence felt in the technical gas field. The American Gas Journal joins the American gas industry in extending to Mr. Fulweiler its heartiest congratulations on the honor bestowed upon him.

At the U. G. I. booth, Mr. Fulweiler told the representative of the American Gas Journal that he felt that the Grasselli medal was not so much a recognition of his work in gas technology as a merited recognition of the importance of the gas industry itself.

Mr. Fulweiler's work in the investigation of gummy deposits in pipes and meters, and in the determination of the constitution of gas oil is well known to the gas industry. The day is not far distant when supplies of gas oil will be limited, and it is of paramount importance to know just what this gas oil is, what it contains, so that steps may be taken to develop other products to take its place when it is no longer available. The pure hydrocarbons, that constitute gas oil, have been isolated and their effect on gas making have been examined and studied.

Mr. Fulweiler also explained and demonstrated to the American Gas Journal's representative two instruments for testing gas, which will become popular with the gas industry, it is hoped. One is the sulphuretted hydrogen tester which is an admirable example of a simple, easily operated and fool-proof apparatus. With this instrument, any gas chemist or laboratory assistant can determine not only if the gas contains any sulphuretted hydrogen, but also how much of it is in the gas. Color tests on a piece of filter paper, specially gotten

(*Continued on page* 417)

HE WAS!

A Play in One Act
By Syd
Cast of Characters

Charley Person.....A good looking, blond, young man
Syd .....A Reporter
Stenographers, Visitors, etc.

Scene. A little office in the northeast corner of Exhibit Hall No. 1.

Syd

Mr. Person are you——

(Telephone rings)

Person

Hello, yes this is Person speaking. Certainly—at the end of the Steel Pier at 10.30. Yes—the opening session, yes—well, really, I don't know, about 12.30 I presume. Your welcome.

Stenographer

Mr. Person, there's a man outside wants to know if any of the Gas Heater displays has a hooch still appliance attached to it. He wants to buy one.

Person

Tell him to ask Jack Edwards, he'll know.

Syd

Mr. Person are you——

(Telephone rings)

Person

Hello, Person speaking. Who? Oh, Mrs. Gaspipe. No, I haven't seen him this morning. Maybe he is—in fact I'm quite sure he is, most every one has. Last night—where did he say he was? No, the one I saw him with had red hair. He didn't—well that was pretty late, wasn't it? Certainly I will—just as soon as I see him. Your perfectly welcome, Mrs. Gaspipe, don't mention it.

Syd

As I was going to ask you, are you——

Stenographer

Mr. Person where does the Commission on Resusitation from Carbon Monoxide Asphyxia meet? Yes, sir, thank you, I'll tell him.

Syd

I was going to ask you Mr. Person whether you were——

(Telephone rings, Person picks up receiver)

but I see you are, Thanks so much.

CURTAIN.

Nice Weather Today

"Tycos" weather forecasts have been pretty accurate so far.

The barometer at the Taylor Instrument Company "fell" rapidly before Monday afternoon's storm. With the passing of the blow, it rose steadily.

Tycos weather forecast yesterday said:

"Fair weather with brisk winds which will diminish."

Engineers Meet

(*Continued from page* 406)

the committee during the past year. The report is abstracted on page 427 of this issue. One reason for the shortness of the report, he said, was due to the fact that a great many gas processes, which wrere reputed to be of the complete gasification type, were not so at all.

The chairman then called upon Prof. Demorest of Ohio State University, who has been conducting some important work on the determination of the relative values of run of mine and lump coal for carbonization purposes for the Carbonization Committee, to say a few words regarding the progress of this work. Prof. Demorest explained that up to the present time experimentation had been carried out with the installation at Ohio State University with the idea of ganing familiarity with the operation of the apparatus and determining just what it could do. He promised to have some interesting and valuable data to report at the next convention.

LIVELY DISCUSSION ON MORRIS PAPER

Chairman Willien then called upon the members to discuss the reports and papers read during the afternoon. Practically al lthe discussion was centered on Mr. Bauer's report of the Operators' Section. W. H. Earl, of Rochester, N. Y., had much to say in praise of the proposed standard data sheet on which operating plants were to report their operations. He commended the reduction in the size of the sheet and in the mass of data required as compared with former report sheets. The old report was much too complicated, it was pointed out, and the new report much simpler and more valuable. He advised that the builders of carbonization apparatus take an active interest in this work of standardizing the reporting of operations so that the real efficiency of different types of apparatus might be determined.

H. Vittinghoff, of Boston, had a few words of constructive criticism to make on the new form of report. He called attention to the fact that too much data was requested on that report, that is, too many analyses and tests were required, which would render a hardship to the small plant.

C. E. Paige, of Worcester, Mass., pointed out the necessity of issuing accurate and detailed instructions on the matter in which to compile the data, so as to avoid the collection of useless and incomparable information. He had a few words to say about the methods in vogue at his plant for the collection of operation data.

The rest of the discussion was taken up with a pro and con argument regarding the results given in Mr. Morris' article (see page 424). The discussion was started by S. P. Sherman, of Racine, Wis. He commended the writer of the article for the many good points that it contained, but pointed out certain discrepancies in the figures and called attention to the fact that blue gas and producer gas do not mix well and can not be burnt completely under the furnace.

Mr. Taussig first had a few words of advice to say on the matter of keeping records of the operation of gas carbonizing apparatus and then turned his attention to the Morris paper. He said that the loss of 12.9 per cent of heat in the ash according to the blue gas balance requires further explanation.

C. J. Ramsburg answered Mr. Taussig, defending Mr. Morris' paper and asking for intensive study of the work reported therein. The discussion then became general, Messrs. Taussig, McGurty, Bellamy, Ramsburg, Morris, Russell, Beebe, and others taking an active part therein. Many points of interest were brought out during the course of this discussion, such as the carbon dioxide production and its cause, the importance of the grate, the consumption of breeze, etc.

Fulweiler Awarded Medal

(*Continued from page* 416)

up for the purpose, indicate the proportion of sulphuretted hydrogen in the gas.

The other instrument is for the determination of the amount of naphthalene in the gas. Usually this determination takes several hours, but with the new instrument only a half an hour is required for the testing. Solutions of picric acid are used, the gas, containing naphthalene giving a precipitate of naphthalene picrate. As soon as this is formed the solutions of picric acid are poured into electrolytic cells that form part of a Wheatstone bridge arrangement. Due to the fact the solution in which picrate was deposited has increased in resistance, it is possible to read off from a calibrated scale the percentage of naphthalene in the gas, corresponding to the additional balancing resistance introduced in the bridge.

Use of Publicity

(*Continued from page* 410)

trimmers, and above all, the importance of good appliances.

Owing to lack of space it is impossible to present Mr. Weedon's paper in full n this issue, but the text of it will be carried in the Daily Edition of the American Gas Journal tomorrow.

DISCUSS WEEDON PAPER

Mr. Weedon's paper drew widespread comment and discussion. E. J. Cooney, sales and service manager of the Lowell Gas Light Co., of Lowell, Mass., who is scheduled to give an address before the section this afternoon, offered emphatic approval of Mr. Weedon's publicity and advertising outline and told of methods adopted by his organization.

Regarding Mr. Weedon's suggestion of advertising on the back of gas bills, Clinton A. Nash, of the Peoples' Gas Co., of Davenport, Iowa, querried as to his idea of utilizing this method for community advertising, thereby reflecting the good will of the organization for the general public. Mr. Weedon, concurring with a remark by Mr. Cooney that the average gas consumer is generally too "peeved" when he gets his gas bill, not matter how little it might happen to be, to be interested in any advertising that might be carried. However, said Mr. Weedon, if some printer or other person could be induced to pay for the ad he could see no objection to the plan, but as a matter of fact he did not think it would prove of any great benefit.

The general discussion drew from James P. Hanlan, of the Public Service Gas Co., of Newark, N. J., a strong recommendation that the Association conduct a national advertising campaign by means of a direct-by-mail idea. His plea was that such a campaign be directed against architects and builders, and he also favored a series of educational articles by the Association to make the non-productive customers more valuable assets. In this connection he suggested that these delinquent or non-productive customers be addressed in their own tongue. By grappling with this problem now, Mr. Hanlan, insisted, by means of proper advertising, in five years the gas men would be able to reduce the non-productive customers to a minimum.

The joint session was brought to a close by a report of the Industrial Fuel Sales Committee, presented by F. F. Cauley, chairman. The report said in part:

LACK OF KNOWLEDGE RETARDS

"The lack of knowledge as to what can be accomplished with gas when properly applied has done more to retard our progress than anything else. As an example, how many men in our commercial departments know how much gas can be sold to the various industries in their respective localities, and how much gas is required for the thousands of operations that are going on about us?

"Holding to our text—gas sales—the committee feels that we should mention here the matter of proper presentation

H. KIRKPATRICK

of propositions to industrial prospects. This was discussed at length at our committee meeting, and we believe that it is of vital importance. It is acknowledged by the best authorities on sales that success or failure largely depends on the way a propostion is presented, and this truly applies to selling gas to the wholesale customer. A sales engineer should make a careful and comprehensive study of his prospect which should include main capacity, service, meters, interior piping, and I might say, above all, the proper methods of application of gas to the heating operation. The above data, when presented with drawings and written proposition, will not only be clear but will inspire confidence and make the customer feel he is dealing with an engineer who knows his business.

"The committee feels that there never was a time in the history of the gas business that the sale of gas for industrial uses was so encouraging."

SOME RECOMMENDATIONS

In conclusion, the committee had the following recommendations to make:

1. That the work of furnishing American Gas Association headquarters with operating data and pictures of the most modern gas installations be continued, and that such material be published regularly in the Bulletin and other trade papers and magazines.

2. That we should encourage architects and engineering firms by closer contact to recommend gas fuel to their clients. Once they know of the possibilities of gas in the factory these men will prove assets to our business.

3. That the educational work of training men for our business be pushed to the limit. Gas companies to train men within their own organizations; state gas associations to work with the state universities to install gas engineering courses, and that the American Gas Association should do everything possible to assist in this work.

4. That work with the Bureau of Standards should be continued as the research work conducted by that organization will be very valuable to our engineers.

PROGRAM FOR TODAY

Today's joint session of the Commercial and Publicity and Advertising Sections, to be held in the Vernon Room at Haddon Mall commencing at 2.30, will include addresses as follows: "Automatic Water Heating," by C. E. Bartlett, president and manager of Bartlett and Co., Inc., Philadelphia; "Why Gas Companies and the Plumbing Trade Should Co-operate, and How," by William J. Wolley, manager of the National Trade Extension Bureau, Evansville, Ill., and "Salesmanship in Public Relations," by E. J. Cooney, of Lowell, Mass.

Urges Joint Meeting

(*Continued from page* 405)

"The papers and discussions of the Carbonization Committee were very interesting and most instructive. Most of the members know that the N. E. L. A. also has a committee whose work is along the same line. Would it not be a good idea for the Carbonization Committees of the A. G. A. and the N. E. L. A. to have a joint meeting or two during the year? It might save duplication of work and it would most certainly result in hearty co-operation, to say nothing of the wonderful results which would be bound to come during the exchange of deas."

Mr. Burdick's suggestion is one which should have the attention of both the N. E. L. A. and the A. G. A.

The Eterenal Feminine

(*Continued from page* 412)

I bet I can do something you can't do! From now on I can read my own meter. They tell you how to do it in one of the booths. That information is worth the whole trip to me. One part of the apparatus registers 1,000 cubic feet, another 10,000, and a third 100,000, but I'll tell you all about it when I get back.

There were oodles of booths that I couldn't make out at all, but I didn't feel badly because lots of the men couldn't, either. I mean those booths that contained new inventions of a most technical nature. I heard about balanced valves and such things until I thought that I must be in a foreign country. There was a most interesting-looking engine outside, working full force. Don't know how it worked, but I enjoyed watching it with the rest of the crowd.

Harry and I are going over to the exhibition again this afternoon. It sure is worth it. Tonight is the big get-together on the pier. Sure wish you were here, Nell.

You'd have liked the walk Harry and I took on the Boardwalk last night. I made him look in all the windows, that is, until he said, "Hat, do you think we came here on a shopping expedition?" And then we had some orangeade, and he bought me some of that salt water taffy I promised to bring back for the kiddies.

Just as soon as it is nice and warm and we haven't a thing to do, we're going for a ride in one of those wheel chairs. I'll probably feel like an invalid or a fool, but I'm not going to leave Atlantic City without having had that experience.

Time to eat again. Love,

"HAT."

"Around the Clock"

(*Continued from page* 408)

and the information also is given that the first customer was furnished gas in 1816. As a sales medium, a gas manufacturer desirious of interesting prospective customers, or an appliance house, could undoubtdly use this film to excellent advantage, providing he had the facilities for showing the picture. But aside from this it is a question as to whether the American Gas Association will ever realize from the results of its efforts. And the writer does not for a minute doubt that the effort—from the gas man's viewpoint—was a most laudable one.

Change Rates

(*Continued from page* 407)

the shaping of the policies of that body were explained by C. A. Munroe, Chicago, chairman of the committee representing U. S. Chamber of Commerce membership. Mr. Munroe pointed out that as the natonal commerce body has a membership of 1,303 organizations, representing 750,000 people, the desirability of having the Association represented in its governing council would be untold.

President-elect Brown and Vice President Klumpp, following their election made a few remarks of acceptance.

"I think this is the greatest honor that could be paid to a gas man," declared Mr. Brown. "I appreciate the honor that you have bestowed upon me and I will devote the best that is in me to carrying on the splendid work that the Association is performing."

"My entire interest is with the A. G. A., said Mr. Klumpp. "I am going to support President Brown in every respect and to the end that our term will be one of worth-while accomplishment."

Convention Hits Stride

(*Continued from page* 405)

appear to be unanimous that business conditions have reached a point where nothing but progress in the gas industry is in store for them and they are proceeding to take advantage of every opportunity.

Many of the ladies in attendance at the convention were entertained yesterday at the Seaview Golf Club, and there were several card parties and luncheons at Haddon Hall. Today there will be a luncheon and card party at the Seaview Club, and other forms of entertainment are being arranged.

CHICAGO OR ATLANTIC CITY NEXT YEAR

Chcago, with Atlantic City as an alternative, were the cities selected by the Time and Place Committee, headed by B. F. Lyons, for the site of the 1923 convention and exhibition. Mr. Lyons pointed out that the A. G. A. has far passed the stage where its annual get-together could be held in one building, and he suggested that next year's sessions be held early in October. The matter was referred to the Executive Committee for final decision.

Convention Folk Trip the Fantastic

Social Gathering Attracts Members from Four Corners of the Nation to Make Merry—Babe of Six Entertains

Convention folk from California, Michigan, Virginia, Massachusetts and all over the United States, came together last night in the first big social gathering held under the auspices of the Fourth Annual Convention. The great hall on the Steel Pier was ablaze with lights, whose reflection glowed in the countless glass windows and was thrown back from the bright yellow and blue bunting overhead. Hundreds of chairs lining the walls were filled by the vast crowd long before the orchestra opened the evening's program. Everyone was in a happy mood, eagerly looking forward to an evening of recreation.

Led by Mr. and Mrs. H. M. Brundage, of New York City, the grand march brought couple after couple to the floor, going majestically through the movements of the well-known march. With the change to the lighter dance music, the lines divided and the hall was the scene of a throng of light-hearted dancers. In between dances members of the big party were attracted by large bowls of punch or went walking on the Boardwalk for a breath of fresh air.

Any danger of monotony was removed by vaudeville acts, in which Mr. and Mrs. De Cardo gave several dances. "Baby" De Cardo, age six, was also one of the entertainers with her interpretation of a professional dancer.

Among prominent persons sighted at the gathering were P. S. Young, Newark; Charles M. Cohn, Baltimore; William H. Gartley, Philadelphia; A. P. Lathrop, New York City; W. E. McKay, Boston, Mass.; Charles H. Nettleton, New Haven, Conn.; Henry L. Doherty, New York City; Charles H. Learnes, Meridian, Conn.

The entertainment committee included William J. Clark, chairman, Mt. Vernon, N. Y.; Reginald S. Doull, New York City; Thomas Scofield, New York City; Joseph B. Meyers, Philadelphia; R. G. Rolston, Philadelphia; J. B. Douglas, Philadelphia; Carlton Geist, Atlantic City; Louis Stotz, New York City.

Bookkeeping Systems Are Subject of Discussion

W. H. Cassell Tells Accounting Section How "Bookkeeping Without Books" Has Revolutionized Business Department of Consolidated Gas Co. of Baltimore

Gas and electric companies were "up against it" during the war period, when rates were low and costs continually rising, according to W. H. Cassell, of the Consolidated Gas Company, of Baltimore, who presented an excellent paper on "Bookkeeping Without Books," before the Accounting Section at its initial session yesterday.

The newly elected officials of the Accounting Section for the ensuing year are J. W. Heins, of the United Gas Improvement Company, of Philadelphia, chairman; William A. Sauer, of the People's Gas Light & Coke Company, Chicago, vice-chairman.

Various methods were considered by individual companies, Mr. Cassell told the gas men, which would bring about just one result, that of curtailing expenses. Consolidated Gas, Electric Light & Power Company, of Maltimore, while desiring to curtail its expenses, was forced to renew its ledgers. This meant an additional outlay of $25,000, which at the moment was entirely inadvisable. The result was the "Baltimore System" or "Bookkeeping Without Books," which Mr. Cassell presented.

This system was conceived after it had been observed that approximately 80 per cent. of the customers in Baltimore paid their service bills regularly before the expiration of the discount period which the company was using. The natural inquiry arising from this fact was, why was it necessary to post in detail the debits and credits for 80 per cent. who usually paid cash. After some investigation, it was decided that there was no real necessity for keeping accounts in detail for this class of customer, and the system now in vogue was evolved.

BILLING DEPARTMENT GROUPED

The billing department is divided into various groups, each separate group having a different function. They are:

Addressograph group—Addressing of bills, meter reading sheets, delinquent collection cards, etc.

Entry group—Handles new accounts, changes names, discontinues accounts, sets meters, locks meters, removes meters, makes meters active and changes rates and schedules.

Indexing group—Places all readings on bills preparatory to billing and extension work.

Merchandise group—Responsible for proper handling, billing and recording of all merchandise charges.

Billing group—This section is responsible for the extension and completion of bills for customers.

Revenue Listing and Analyzing group—Compile income from the ledger records and handbooks and prepare the monthly income analysis and reports.

Cash Receipts group—This covers the verification of the credit stubs received with the tellers' and collectors' cash, and segregation of these stubs into folio order ready for credit postings.

Credit Posting group—Posts credit stubs to the record.

Delinquent group—Notifies collection department of all customers whose accounts are not paid on or before due date.

Balancing Department—This is a separate bureau whose duty it is to balance the consumers' accounts and reconcile same with the controlling account of the company's general books.

"This, in compact form, completes the organization, which is intrusted with the operation of the new system. But nine forms are used, and while at the outset this system would appear to be rather complicated, as a matter of fact it works out with simplicity," said Mr. Cassell.

BALANCING "DELINQUENTS"

In but one instance, apparently, is the old ledger system brought into operation, that is in the balancing of "Delinquents." All accounts are balanced under two heads, "Currents" and "Delinquents," the two classes are added together and the final reports sent to the Auditing Department for reconciliation with the general books.

"One of the best features in connection with the balancing under this system," said Mr. Cassell, "is that the balancing of more than 80 per cent. of the accounts is executed the day after the section is due, which often enables the department to anticipate complaints, and also the advantage of handling only the accounts which affect the balance outstanding, as all paid accounts have been removed and balanced."

"The system of 'Bookkeeping Without Books,'" continued Mr. Cassell, "has been in use in all sections of the city of Baltimore since October, 1918, and the balancing has been completed with satisfaction to all oncerned. With the installation of any system making such a radical departure from established precedent, there are naturally many little details which develop, and which it is found gradually bring the process nearer and nearer the ideal for which we all strive, but seem never to fully attain. The balancing has brought about improvement, and it can be stated with confidence that the system is in successful operation."

Mr. Cassell, in summing up, stated that the advantages found in this system may be stated briefly as follows:

1. No ledgers to be renewed at regular intervals.
2. Greater facility and speed in posting credits.
3. Segregation of lease merchandise charges from other accounts receivable.
4. Over 80 per cent. of the accounts are balanced after the discount date.
5. Only 20 per cent. of accounts to be handled during delinquent period and in obtaining outstanding balance at end of month.
6. Absolute check of revenue from original reading by meter readers to the preparation of income statement.
7. Less vault storage required, as ledgers and ledger trucks are no longer needed.
8. Changes in form to meet special conditions may be m ade any month without affecting system.
9. Complaints anticipated by earlier balance.
10. Meter reading routes may be changed any month without difficulty.
11. More compact—10,000 accounts within reach of clerk without moving.
12. Simplicity—does not require clerks with bookkeeping knowledge to handle routing operations.
13. The elimination of handling of heavy ledgers, which means considerable, particularly with female help.

During the general discussion that followed, Mr. Heins, of the United Gas Improvement, described in detail the accounting carried on by his company. He took exception to the various methods presented, with the exception of the "Baltimore System," stating they were in a large way duplications. Mr. Heins could not see why the Boston Consolidated Gas Company used cards in triplicate, adding to the expense, and stated that his system was in use for years without change. H. M. Brundage, of the Consolidated Gas Co. of New York, said that United Gas Improvement has practically been in operation since the days of Benjamin Franklin, and therefore was quite behind the times.

Karl Jorgensen, of the Bureau of Commercial Economics, Inc., who read a paper on the "Critical Analysis of Typical Bookkeeping Systems," was held up for a number of hours on his way here from Chicago. His telegram, advising of his delay had barely been read when the sender himself appeared on the scene and began his paper.

REGISTRATIONS CONTINUE TO POUR IN AT HEADQUARTERS

Association Members Swamp Clerks At Headquarters—Visitors Are Registered From Four Corners of the Country—Complete List Will Be Ready Today.

The following list covers the registration of members and guests of the Assocation up to 5 o'clock Monday evening. This list was furnished by the American Gas Association.

A

Adams, Oliver W.; Brockton, Mass.; Chalfonte.
Addis, E. M.; Wallingford, Conn.; Ambassador.
Alcott, F. L.; Cleveland, O.; Marlborough-Blenheim.
Alexander, W. A.; St. Louis, Mo.; Traymore.
Allison, Walter A.; Philadelphia, Pa.; Chalfonte.
Andrews, C. W.; Duluth, Minn.; Marlborough-Blenheim.
Armstrong, H. V.; Sioux Falls, S. D.; Marlborough-Blenheim.
Armstrong, John J.; Toronto, Can.
Arnold, G. W.; Shelbyville, Ind.
Arrigh, W. R.; Lorain, Ohio; Chalfonte.
Ashworth, James; Jersey City, N. J.; Ritz-Carlton.

B

Bailey, M. P., Jr.; Cleveland, Ohio; Traymore.
Bailey, M. N.; Philadelphia, Pa.; Traymore.
Baker, Chas. I.; Pittsburgh, Pa.; Traymore.
Baker, H. N.; New York City; Bothwell.
Baker, P. H.; Everett, Mass.; Haddon Hall.
Ball, F. L.; Fitchburg, Mass.; Haddon Hall.
Bates, H. C.; Chicago, Ill.; Traymore.
Barnitz, F. R.; New York City; Marlborough-Blenheim.
Barrett, W. J.; Indianapolis, Ind.; Ritz-Carlton.
Barry, M. J.; Kansas City, Mo.; Marlborough-Blenheim.
Bartell, E. J.; Brooklyn, N. Y.; Strand.
Bates, S. F.; Bristol, Tenn.; Traymore.
Batten, J. W.; Detroit, Mich.; Traymore.
Baxter, E. O.; Yonkers, N. Y.; Glaslyn.
Baylie, W. P.; Philadelphia, Pa.; Strand.
Bayly, C. C.; Washington, D. C.; Traymore.
Bean, E. H.; Knoxville, Tenn.; Marlborough-Blenheim.
Bean, P. H.; Newark, N. J.
Beaumont, E. S.; Chicago, Ill.; Traymore.
Bockjord, W. C.; New York City; Traymore.
Bees, Joe; Scranton, Pa.; Haddon Hall.
Behrman, H.; Brooklyn, N. Y.; Traymore.
Bell, W. R.; Haverhill, Mass.; Ambassador.
Bennett, C. W.; Detroit, Mich.; Traymore.
Berry, Walter M.; Washington, D. C.; Traymore.
Bertolette, N. B.; Philadelphia, Pa.; Traymore.
Bickow, E.; Milwaukee, Wis.; Haddon Hall.
Bimson, John, Jr.; Patterson, N. J.; Dennis.
Bird, E. H.; Pittsburgh, Pa.; Marlborough-Blenheim.
olack, J. B.; Pittsburgh, Pa.; Marlborough-Blenheim.
Blyler, L. F.; Duluth, Minn.; Alamac.
Boardman, C. C.; Aurora, Ill.; Traymore.
Bonsell, R. F.; Baltimore, Md.; Traymore.
Boyd, G. H.; New York City; Haddon Hall.
Bradley, Wallace H.; Springfield, Mass.; Chalfonte.
Brady, B. J.; Philadelphia, Pa.; Traymore.
Breen, C. J.; Allston, Mass.; Traymore.
Brill, A. P.; Pittsburgh, Pa.; Traymore.
Broadwater, C. C.; San Francisco, Cal.; Bellevue.
Broderick, E. F.; Savannah, Ga.; Devonshire.
Brombacher, J.; Los Angeles, Cal.; Clarendon.
Brown, C. E.; Philadelphia, Pa.; Philadelphia.
Brown, John C.; Chicago, Ill.; Traymore.
Brown, R. B.; Milwaukee, Wis.; Traymore.
Brown, M. E.; Jamaica, N. Y.; Strand.
Brubaker, W. L.; Middletown, Pa.; Wellsworth.
Bryons, Henry B.; Norristown, Pa.; Traymore.
Buckley, H. L.; Philadelphia, Pa.; Traymore.
Bull, D. M.; Brooklyn, N. Y.; Marlborough-Blenheim.
Bullard, F. J.; Hagerstown, Md.; Wiltshire.
Burges, James; Petersburg, Va.; Senator.
Burr, Alfred B.; New Haven, Conn.; Traymore.
Butterworth, A. S.; Springfield, Ill.; Traymore.

C

Cable, W. I.; Chicago, Ill.; Traymore.
Cadby, John N.; Madison, Wis.; Haddon Hall.
Cadwalader, W. S.; New York City; Traymore.
Cahill, F. J.; St. Louis, Mo.; Breakers.
Cahill, W. J.; Utica, N. Y.; Traymore.
Calahan, M. J.; New York City; Alamac.
Clark, John C.; Philadelphia, Pa.; Marlborough-Blenheim.
Clark, H. H.; Chicago, Ill.; Marlborough-Blenheim.
Callender, D. E.; Racine, Wis.; Traymore.
Cameron, R. A.; Chicago, Ill.; AmsterdamApts.
Capen, Frank F.; East Boston, Mass.; Breakers.
Carnshan, G. C.; Chicago, Ill.; Traymore.
Cartwright, H. R., Jr.; New York City; Shelburne.
Cassell, W. H.; Baltimore, Md.; Traymore.
Cauley, F. F.; Chicago, Ill.; Strand.
Chandler, H. P.; Elizabeth, N. J.; Traymore.
Clarke, R. L.; Philadelphia, Pa.
Clifford, T. C.; East Pittsburgh, Pa.; Haddon Hall.
Clinton, D.; Worcester, Mass.; Haddon Hall.
Cocke, J. B.; Newport News, Va.; Traymore.
Coles, J. M.; New York City; Traymore.
Connette, T. W.; Lockport, N. Y.; Marlborough-Blenheim.
Conrad, Frank L.; Chicago, Ill.; Traymore.
Cooney, E. J.; Lowell, Mass.; Traymore.
Cornell, C. E.; Moline, Ill.; Dennis.
Cottle, Henry F.; Allston, Mass.; Continental.
Crafts, H. C.; Pittsfield, Mass.; Brighton.
Crankshaw, J. W.; Allentown, Pa.; Strand.
Crankshaw, L. G.; St. Louis, Mo.; Ritz-Carlton.
Craven, J. B.; Chicago, Ill.; Traymore.
Crisfield, J. A. P.; Philadelphia, Pa.; Traymore.
Curren, G. W.; Philadelphia, Pa.; Marlborough Blenheim.
Curtin, J. M.; St. Louis, Mo.; Marlborough-Blenheim.
Curfman, F. C.; New York City; Chalfonte.
Cutchenson, F. R.; Long Branch, N. J.; Traymore.

D

Dashiell, P. T.; Philadelphia, Pa.; Traymore.
Davies, H. W.; Philadelphia, Pa.; Traymore.
Davies, J. E.; Chicago, Ill.; Traymore.
Davis, M. W.; Bradford, Pa.; Traymore.
Dayton, H. P.; Haverhill, Mass.; Ambassador.
De Prez, K. J.; Shelbyville, Ind.
De Quine, L. E.; Long Branch, N. J.; Traymore.
Derwent, W. E.; Rockford, Ill.; Traymore.
Dexter, F. P.; Fall River, Mass.; Chalfonte.
Dickey, E. S.; Baltimore, Md.; Traymore.
Dicky, Chas. H.; New York City; Seaview Golf Club.
Dion, A. A.; Ottawa, Can.; Marlborough-Blenheim.
Doerres, J. H.; St. Louis, Mo.; Marlborough-Blenheim.
Donough, M. A.; South Bend, Ind.; Ambassador.
Doyle, John; New York City; Strand.
Duff, J.; Jamaica, N. Y.; Chalfonte.
Duff, John A.; Lockport, N. Y.; Marlborough-Blenheim.
Duggan, F. P.; Lewistown, Pa.; Dennis.
Dunkley, W. A.; Urbana, Ill.; Wiltshire.
Dunning, F. E.; Chicago, Ill.; Traymore.
Dyer, J. C.; Pittsburgh, Pa.; Traymore.

E

Eavenson, W. K.; Fall River, Mass.; Chalfonte.
Ehlers, W. A.; New York City; Traymore.
Elliot,. B. L; Chicago, Ill.; Marlborough-B enheim.
Elliott, W. J.; Brooklyn, N. Y.; Clarendon.
Entwisle, I. H.; Washington, D. C.; Traymore.
Eodds, C. J.; Lawrence, Kan.; Marlborough-Blenheim.
Eves, Philmer; New Haven, Conn.; Traymore.
Eustace, J. H.; Chicago, Ill.; 22 N. Clede Place.
Evans, David M.; Brooklyn, N. Y.; Bothwell.
Eysenbach, E. E.; Hartford, Conn.; Traymore.

F

Fairservis, W. A.; New York City; Chalfonte.
Fay, Sherman; Fort Wayne, Ind.; Senator.
Ferguson, B. B.; Portsmouth, Va.; Strand.
Feuers, H. C.; Sedalia, Mo.; Marlborough-Blenheim.
Fieldner, A. C.; Pittsburgh, Pa.; Chalfonte.
Fischer, G. P.; New York City; Traymore.
Fisk, H. B.; Chicago, Ill.; Traymore.
Fowler, W. M.; Philadelphia, Pa.; Amsterdam.
Fox, Chas. J.; Darby, Pa.; Traymore.
Francisco, E.; Newark, N. J.; Marlborough-Blenheim.
Frank, M. H.; Fond du Lac, Wis.; Traymore.
Frank, G. H.; Chicago, Ill.; Seaside.
Frary, C. O.; Chicago, Ill.; Traymore.
Freese, Fred W.; Chicago, Ill.; Traymore.
Fritz, E. A.; Cleveland, Ohio; Ritz-Carlton.
Fritz, E. C.; Cleveland, Ohio; Ritz-Carlton.
Fullerton, J. C.; Lorain, Ohio; Chalfonte.
Fulweiler, W. H.; Philadelphia, Pa.; Traymore.
Fresselman, Paul; Ardmore, Pa.; Traymore.

G

Garvin, A. E.; St. Louis, Mo.; Traymore.
Gannon, J. J.; St. Augusta, Fla.; Strand.
Gill, A. L.; Washington, D. C.; Traymore.
Gill, W. Herbert; Washington, D. C.; Traymore.
Gillingham, H. D.; New York City; Haddon Hall.
Ginsberg, I. S.; New York City; Chalfonte.
Gribbel, W. G.; Philadelphia, Pa.; Traymore.
Goss, A. J.; Ottumwa, Iowa; Breakers.
Gould, Wm.; Boston, Mass.; Haddon Hall.
Green, R. L.; New York City; Dennis.
Green, S.; Brooklyn, N. Y.; Marlborough-Blenheim.
Greene, J. J.; New York City; Traymore.
Greer, W. R.; Baltimore, Md.; Traymore.
Groves, Geo.; Battle Creek, Mich.; Traymore.
Guinan, W. P.; New York City; Traymore.
Guitteau, Wm.; Cincinnati, Ohio; Traymore.

H

Haase, Ewald; Milwaukee, Wis.; Haddon Hall.
Habig, Leonard; Passaic, N. J.; Dennis.
Haddock, O. T.; Cambridge, Mass.; Traymore.
Hall, I. S.; Boston, Mass.; Chalfonte.
Halley, A. A.; Mt. Vernon, N. Y.; Traymore.
Hallock, J. L.; Brooklyn, N. Y.; Ambassador.
Hamilton, Gus; Denver, Col.; Traymore.
Harper, Robert B.; Chicago, Ill.; Traymore.
Hayne, Dan C.; Kansas City, Mo.; Marlborough-Blenheim.
Hauschildt, C. J.; Davenport, Iowa; Traymore.
Hellen, William; Kalamazoo, Mich.; Breakers.
Hemminger, G. R.; Philadelphia, Pa.; Marlborough-Blenheim.
Herrman, Henry; Newark, N. J.; St. Charles.
Herwig, Franiz; Milwaukee, Wis.; Haddon Hall.
Heyser, E. L.; Philadelphia, Pa.; Traymore.
Hibbs, W. J.; Philadelphia, Pa.; Maharaba Apts.
Hiddleson, W. A.; Bristol, Tenn.; Traymore.
Higgins, A. A.; Providence, R. I.; Marlborough-Blenheim.
Hill, R. I.; Aberdeen, S. D.; Traymore.
Hitz, G. E.; Poughkeepsie, N. Y.; St. Charles.
Hobday, J. H.; Cleveland, Ohio; Martin.
Hodge, W. H.; Chicago, Ill.; Traymore.
Hodges, Geo. B.; Williamsport, Pa.; Belvedere.
Hoffman, Howard; Philadelphia, Pa.; Seaside.
Holzer, E. G.; Norfolk, Va.; Marlborough-Blenheim.
Horen, W. J.; Cleveland, Ohio; Ritz-Carlton.
Horner, E. C.; St. Louis, Mo.; Marlborough-Blenheim.
Horr, F. A.; St. Louis, Mo.; Marlborough-Blenheim.
Hatfield, S. W.; Macon, Ga.; Marlborough-Blenheim.
Howsman, G. M.; Atlanta, Ga.; Ambassador.
Hubbs, J. H.; Philadelphia, Pa.; Traymore.
Hulbert, Albert; Pittsburgh, Pa.; Traymore.
Hulbert, F. H.; New York City; Alamac.
Hume, Rawlins; Washington, D. C.; Traymore.
Humphrey, H. I.; Kalamazoo, Mich.; Traymore.
Hungerford, B. A.; Pittsburgh, Pa.; Traymore.
Hutcheson, H. F.; Toronto, Can.; Dennis.

I

Ingle, R. B.; Fulton, N. Y.
Irving, W. J.; Middletown, Pa.; Wellsboro.

J

James, F. M.; Aurora, Ill.; Traymore.
Jasperson, R. O.; New York City; Ritz-Carlton.
Jeffries, R. N.; Chicago, Ill.; Traymore.
Jenkins, A. F.; Mt. Vernon, N. Y.; Traymore.
Jesper, H. E.; Brooklyn, N. Y.; Traymore.
Johnson, G. M.; South Bend, Ind.; Ambassador.
Johnson, W. B.; Toronto, Can.; Traymore.
Johnston, Ernest; Syracuse, N. Y.; Marlborough-Blenheim.
Joley, E. C.; San Antonio, Texas; Traymore.
Jonas, T. N., Jr.; Norfolk, Va.; Marlborough-Blenheim.
Joseph, E. N.; Fort Wayne, Ind.; Senator.
Joy, G. E.; San Juan, Porto Rico; Ambassador.

K

Kain, Edw. J.; Chicago, Ill.; Traymore.
Kallstedt, C. H.; Chicago, Ill.; Strand.
Kersimer, G. M.; New York City; Marlborough-Blenheim.
Kellers, A. R.; Syracuse, N. Y.; Marlborough-Blenheim.
Keppelman, John R.; Reading, Pa.; Strand.
Kessler, H. G.; New York City; Ambassador.
Killam, W. S.; Detroit, Mich.; Traymore.
King, F.; Pittsburgh, Pa.; Strand.
Kingsbury, C. G.; New York City; Alamac.
Kirkpatrick, H. B.; Pittsburgh, Pa.; Marlborough-Blenheim.
Klein, J. P.; Baltimore, Md.; Traymore.
Klein, A. K.; New York City; Traymore.
Kline, R. C.; Rockford, Ill.; Traymore.
Klumpp, J. B.; Philadelphia, Pa.; Traymore.
Knowles, James M.; New York City; Haddon Hall.
Knight, Russell W.; Philadelphia, Pa.; Traymore.
Kertwright, L. S.; Middletown, Pa.; Wellsboro.
Kurtz, A.; Detroit, Mich.; Marlborough-Blenheim.
Kralm, S. G.; New York City; Chalfonte.
Krumrey, R. G.; Beloit, Wis.; Traymore.
Kunberger, A. F.; Philadelphia, Pa.; Traymore.

L

Lattimer, Gardner; Columbus, Ohio; Traymore.
La Fore, P. J.; Boston, Mass.; Chalfonte.
Lane, George A.; Chicago, Ill.; Traymore.
Landreth, G. V.; New York City; Marlborough-Blenheim.
Lawrence, James; New York City; Traymore.
Learned, C. A.; Meriden, Conn.; Traymore.
Leckie, R. B.; Kingston, N. Y.; St. Charles.
Learned, W. A.; Boston, Mass.; Haddon Hall.
Leuderman, A. B.; New York City; Strand.
Le Clair, Chas.; Peekskill, N. Y.; Dennis.
Le Forge, C. C.; Chicago, Ill.; Traymore.
Lewors, C. E.; Portsmouth, Ohio; Ambassador.
Lipecomb, H. A.; Sedalia, Mo.; Marlborough-Blenheim.
Lindquist, A. E.; Cleveland, Ohio; Ritz-Carlton.
Lillie, Lewis; Philadelphia, Pa.; Commuting.
Lindsay, Robert; New Bedford, Mass.; Chalfonte.
Lit, M.; Baltimore, Md.; Traymore.
Little, A. S.; Lynnbrook, L. I.; Ritz-Carlton.
Lohmeyer, H. B.; New York City; Traymore.
Lowell, G. C.; Chicago, Ill.; Traymore.
Luther, C. A.; Chicago, Ill.; Traymore.
Lucas, T. J.; Chicago, Ill.; Traymore.
Lynch, E. P.; St. Louis, Mo.; Traymore.
Lytle, H. M.; Chicago, Ill.; Traymore.
Lyon, Chas.; Charleston, S. C.; Strand.
LuQueer, Robt. O.; Hyatsville, Md.; Haddon Hall.
Luteur, I. M.; Chicago, Ill.; Traymore.

M

MacArthur, A.; Chicago, Ill.; Traymore.
MacArthur, J. S.; Brooklyn, N. Y.; Strand.
MacDonald, D.; New York City; Seaview Golf Club.
Moore, Wm. T.; Elmhurst, L. I.; Chalfonte.
Magee, D. E.; Chicago, Ill.; Marlborough-Blenheim.
Maloney, Martin, 2nd; Ocean City, N. J.; 224 Seaside Avenue.
Mant, L. A.; Newark, N. J.; Strand.
Merkt, T. B. J.; Brooklyn, N. Y.; St. Charles.
Martin, E. B.; Chicago, Ill.; Haddon Hall.
Mason, J. E.; Erie, Pa.; Traymore.
Mather, John L.; Philadelphia, Pa.; Traymore.
Maynard, H. B.; Waterloo, Iowa; Traymore.
McBride, R. S.; Washington, D. C.; Traymore.
McCardle, James; Macon, Ga.; Marlborough-Blenheim.
McCarthy, A. P.; Bangor, Me.; Traymore.
McCleary, Wm.; Freeport, Ill.; Shelburne.
McDonald, Frederick; Albany, N. Y.; Traymore.
McGlinchey, E. J.; Knoxville, Tenn.; Traymore.
McGowan, H. E.; Brooklyn, N. Y.; Marlborough-Blenheim.
McGreevy, J. P.; Utica, N. Y.; Traymore.
McGuire, Jas.; Gloversville, N. Y.; Marlborough-Blenheim.
McKana, G. E.; Chicago, Ill.; Traymore.
McKay, Ed. W.; St. Louis, Mo.; Marlborough-Blenheim.
McKerracher, J. E.; New York City; Traymore.
McManamy, N.; Kansas City, Mo.; Strand.
McNary, J. B.; Hamilton, Can.; Marlborough-Blenheim.
McQuade, Martin D.; Washington, D. C.; Traymore.
Mears, F. K.; Philadelphia, Pa.; Strand.
Metz, Eugene; Kansas City, Mo.; Traymore.
Mitchell, G. F.; Chicago, Ill.; Traymore.
Meyer, A. J.; Yonkers, N. Y.; Traymore.
Mekulsky, Chas.; Racine, Wis.; Traymore.
Miller, T. D.; New York City; Breakers.
Mitchell, A. D.; Hammond, Ind.; Ambassador.
Mitchell, W.; Middletown, O.; Marlborough-Blenheim.
Moffat, F. W.; Watson, Can.; Marlborough-Blenheim.
Moore, George W.; Miami, Fla.; Ambassador.
Morrison, Charles E.; New York City; Traymore.
Mulholland, T. A.; New York City; Alamac.
Mllaney, S. J.; Chicago, Ill.; Traymore.
Muller, Robert; Decatur, Ill.; Traymore.
Mullighan, Jos. J.; New York City; Alamac.
Munroe, Charles A.; Chicago, Ill.; Ambassador.
Murfit, W. G.; Rockhill, S. C.; Chalfonte.
Murphy, J. J.; Chicago, Ill.; Traymore.
Myers, J. B.; Philadelphia, Pa.; Strand.

N

Nawlin, R. H.; Chicago, Ill.; Traymore.
Neal, George A.; Hammond, Ind.; Ambassador.
Neighbour, J. H.; Paterson, N. J.; Dennis.
Nesh, C. A.; Davenport, Ohio; Marlborough-Blenheim.
Newell, W. C.; Brooklyn, N. Y.; Dennis.
Nicholas, Fred G.; Cleveland, Ohio; Ritz-Carlton.
Nicholls, J. S., Jr.; New York City; Traymore.
Nichols, Wm. B.; Quincy, Mass.; Ambassador.
Noble, J. A.; Lockport, N. Y.; Marlborough-Blenheim.
Normand, Edw. A.; New York City; Traymore.
North, M. F.; Fort Wayne, Ind.; Breakers.
Norton, A. E.; Boston, Mass.; Marlborough-Blenheim.
Norton, C. R.; Middletown, Pa.; Wellsboro.
Norton, H. A.; Boston, Mass.; Seaview Golf Club.

O

O'Brien, A. J.; Toledo, Ohio; Ambassador.
O'Brien, B.; New York City; Breakers.
O'Donnell, C. J.; Philadelphia, Pa.; Traymore.
Ovialt, J. E.; Aurora, Ill.; Strand.
O'Brien, R. L.; Detroit, Mich.; Ambassador.

P

Packers, R. B.; Philadelphia, Pa.; Fredonia.
Paffen, P. F.; Boston, Mass.; Traymore.
Paige, C. E.; Worcester, Mass.; Marlborough-Blenheim.
Parker, George N.; St. Louis, Mo.; Traymore.
Parker, John F.; Rockford, Ill.; Traymore.
Parke, F. B.; Brooklyn, N. Y.; Marlborough-Blenheim.
Parmelee, Richard H.; Philadelphia, Pa.; Haddon Hall.
Patno, Mrs. W. Z.; Lynn, Mass.
Pease, L. M.; New Bedford, Mass.; Breaker
Perry, J. A.; Philadelphia, Pa.; Strand.
Peterson, Mrs. Anna J.; Chicago, Ill.; Traymore.
Peterson, W. G.; New York City; Alamac.
Phillipps, R. H., Jr.; Jersey City, N. J.; Ritz-Carlton.
Piatt, Jos. W.; Brooklyn, N. Y.; Strand.
Plank, H. H.; Philadelphia, Pa.; Strand.
Polk, R.; Philadelphia, Pa.; Traymore.
Porter, R. G.; Chester, Pa.; Traymore.
Post, Alfred P.; Philadelphia, Pa.; Haddon Hall.
Preston, Ord; Washington, D. C.; Traymore.
Price, C. R.; New Bedford, Pa.; Traymore.
Purcell, T. V.; Chicago, Ill.; Traymore.
Purckharpt, P. J. A.; New York City; Alamac.

R

Ramsay, Robert E.; Philadelphia, Pa.; Strand.
Ramier, J. F.; Memphis, Tenn.; Traymore.
Ramsburg, C. J.; Pittsburgh, Pa.; Marlborough-Blenheim.
Rawlins, F. W.; Norristown, Pa.; Traymore.
Redington, H. R.; New York City; Marlborough-Blenheim.
Reesman, John S.; Evanston, Ill.; Traymore.
Reeside, H. S.; Washington, D. C.; Traymore.
Renn, G. O.; Middletown, Pa.; Wellsboro.
Rouss, Fred A.; Brooklyn, N. Y.; Alamac.
Reynolds, J. F.; New York City; Traymore.
Rheinhart, S. A.; Chicago, Ill.
Ripley, Edwin F.; East Orange, N. J.; Ritz-Carlton.
Rigdon, S. G.; Cleveland, Ohio; Ambassador.
Roberts, J. M.; Chicago, Ill.; Traymore.
Roberts, Earl W.; Detroit, Mich.; Traymore.
Roberts, E. C.; Hackensack, N. J.; Strand.
Roehry, E. A.; Cairo, Ill.; Marlborough-Blenheim.
Root, W. A.; Bronx, N. Y.; Chalfonte.
Roper, Geo. D.; Rockford, Ill.; Traymore.
Rosenkrans, F. M.; New York City; Traymore.
Ross, S. R.; Philadelphia, Pa.; Fredonia.
Roth, H. P.; Pittsburgh, Pa.; Marlborough-Blenheim.
Rudd, Edw.; Pittsburgh, Pa.; Traymore.
Rudgenberg, John M.; Philadelphia, Pa.; Breakers.
Russell, H.; Rochester, N. Y.; Ambassador.
Rutledge, S. J.; Philadelphia, Pa.; Marlborough-Blenheim.

S

Sauer, W. A.; Chicago, Ill.; Haddon Hall.
Sayer, J. D.; St. Louis, Mo.
Scott, C. B.; Chicago, Ill.; Traymore.
Scott, P. M.; Boston, Mass.; Chalfonte.
Schaffer, Ray; Middletown, Pa.; Wellsboro.
Schiesz, L. B.; Eau Claire, Wis.; Ritz-Carlton.
Schneider, John J.; New York City; Chalfonte.
Scranton, Geo. H.; Derby, Conn.; Traymore.
Shaul, C. D.; Terre Haute, Ind.; Traymore.
Shaw, J. M.; Hanover, Va.; Traymore.
Shiebler, Marvin, New York City; Traymore.
Schmidt, F. W., Jersey City, N. J.; Traymore.
Schmidt, G. F.; Chicago, Ill.; Strand.
Schmitz, Karl B.; Connellsville, Pa.; Traymore.
Schreiner, Henry; Brooklyn, N. Y.; Bothwell.
Schutz, Albert A.; Milwaukee, Wis.; Haddon Hall.
Schwabe, Walter P.; Thompsonville, Conn.; Chalfonte.
Sexton, W. E.; Baltimore, Md.; Haddon Hall.
Shearon, B. P.; Hammond, Ind.; Ambassador.
Sheldon, R. H.; Brockton, Mass.; Chalfonte.
Sherman, S. B.; Racine, Wis.; Traymore.
Sherwood, J. M.; New York City; Traymore.
Shuff, J. E.; Lincoln, Neb.; Ritz-Carlton.
Singke, F. G.; Lorain, Ohio; Chalfonte.
Sloan, H.; Philadelphia, Pa.; Morton.
Smith, A. B.; Kokomo, Ind.; Traymore.
Smith, Edw. M.; Long Island, N. Y.; Strand.
Smith, G. C.; New York City; Haddon Hall.
Smith, H.; Quincy, Mass.; 5501 Ventnor Ave.
Smith, J. Calhoun; Reading, Pa.; Strand.
Smith, Sidney S.; Geneva, N. Y.; Haddon Hall.
Snyder, C. S.; Philadelphia, Pa.; Strand.
Soults, Thos. A.; Mansfield, Ohio.
Spaulding, A. B.; Philadelphia, Pa.; Traymore.
Spitzglass, J. M.; Chicago, Ill.; Traymore.
Spragle, T. J.; Indianapolis, Ind.
Squier, H. N.; Scranton, Pa.; Haddon Hall.
Stannard, C. N.; Denver, Col.; Traymore.
Steinwedell, W. E.; Cleveland, Ohio; Traymore.
Steinmiller, E. C.; New York City; Traymore.
Stephens, W. W.; Columbus, Ohio; Haddon Hall.
Sterrett, W. G.; Chester, Pa.; Traymore.
Stewart, W. D.; Fall River, Mass.; Chalfonte.
Stewart, R. J.; Chicago, Ill.; Traymore.
Stites, T.; Gloucester, N. J.; Traymore.
Stores, A. P.; Owego, N. Y.; Brighton.
Strause, Harry, Philadelphia, Pa.; Traymore.
Strong, J. R.; Philadelphia, Pa.; Y. M. C. A.
Summer, J. H.; Cambridge, Mass.; Alamac.
Sutton, H. C.; Philadelphia, Pa.; Traymore.
Swain, H. D.; Ossining, N. Y.; Dennis.
Swan, G. J.; Topeka, Kan.; Marlborough-Blenheim.
Swayse, W. F.; Newtown, Pa.; Breakers.

T

Taylor, A. C.; Reading, Pa.; Strand.
Taylor, B. D.; Philadelphia, Pa.; Traymore.
Tansey, F. D.; Brooklyn, N. Y.; Traymore.
Tossell, A. L.; Chicago, Ill.; Traymore.
Taussig, J. H.; Philadelphia, Pa.; Traymore.
Tenney, C. I.; Newton, Iowa; Ambassador.
Thomas, Wm. W.; Portland, Me.; Haddon Hall.
Thorn, A. H.; Chicago, Ill.; Traymore.
Travis, G. W. L. R.; New York City; Haddon Hall.
Trump, R. W.; Philadelphia, Pa.; Brighton.
Tucker, E. J.; Toronto, Can.; Dennis.
Turnbull, J. A.; Thompsonville, Conn.; Chalfonte.
Turner, Walter V.; Chicago, Ill.; Ritz-Carlton.

W

Warner, A. W.; Chester, Pa.; Traymore.
Waring, C. H.; Kansas City, Mo.; Marlborough-Blenheim.
Walsh, Wm. J.; Staten Island, N. Y.; Ambassador.
Wallace, R. S.; Peoria, Ill.; Traymore.
Way, J. G.; Cleveland, Ohio; Traymore.
Warnick, Jno. H.; Fort Wayne, Ind.; Strand.
Wardell, C. W.; Gloucester, N. J.; Haddon Hall.
Wall, C. K.; Middletown, Pa.; Wellsboro.
Wallace, C. W.; Toledo, Ohio; Traymore.
Weedon, John F.; Chicago, Ill.; Traymore.
West, Wm. H.; Boston, Mass.; Traymore.
Werner, C. W.; Bronx, N. Y.; St. Charles.
Welton, P. E.; Detroit, Mich.; Traymore.
Wells, H. H.; Newark, N. J.; Haddon Hall.
Wegner, P. H.; New York City; Traymore.
Weadley, W. F.; Kalamazoo, Mich.; Traymore.
Weber, M. B.; Boston, Mass.; Traymore.
Whittaker, A. D.; Atlanta, Ga.; Traymore.
Wharton, F. D.; Pittsburgh, Pa.; Traymore.
Wharton, Henry; Philadelphia, Pa.; Ritz-Carlton.
Whitton, W. H.; St. Louis, Mo.; Traymore.
Wheeler, J. R.; Baltimore, Md.
Whearing, J. H.; Grand Rapids, Mich.; Dennis.
Whipple, R. H.; Philadelphia, Pa.; Traymore.
White, H. E.; Bridgeport, Conn.; Traymore.
Williams, Carlton C.; Yonkers, N. Y.; Traymore.
Wilbur, Arthur A.; Brockton, Mass.; Chalfonte.
Withers, W. G.; Cleveland, Ohio; Traymore.
Wilson, R. I.; Newark, N. J.; Strand.
Wilson, Robert; New York City; Marlborough-Blenheim.
Willien, L. J.; Boston, Mass.; Traymore.
Willard, H. A.; Washington, D. C.; Traymore.
Williams, H. G.; Raleigh, N. C.; Glaslyn
Witman, F. A.; Berwick, Pa.; Haddon Hall.
Wickham, Leigh; St. Louis, Mo.; Ritz-Carlton.
Will, F.; Rochester, N. Y.; Marlborough-Blenheim.
Woodring, W. G. B.; Allentown, Pa.; Strand.
Wolfe, A. M.; Baltimore, Md.; Traymore.
Wohrley, J. R.; New York City; Shelburne.
Winterstein, C. C.; Philadelphia, Pa.; Strand.
Winkley, J. H.; Connersville, Ind.; Breakers.
Wurmser, F. G.; Lorain, O.; Marlborough-Blenheim.
Wurth, W.; Chicago, Ill.; Shelburne.

V

Von Maur, J. D.; St. Louis, Mo.; Alamac.

Y

Young, A. W.; Knoxville, Tenn.; Breakers.
Young, R. S.; Newark, N. J.; Traymore.

Z

Zander, John; Chicago, Ill.; Traymore.

GUESTS

A

Allison, Mrs. Walter; Chalfonte.
Armstrong, Mrs. J. J.; Toronto, Can.
Armstrong, Mrs. H. V.; Sioux Falls, S. D.; Marlborough-Blenheim.
Aaron, Mrs. Chas. T.; Alsted, Mass.; Traymore.
Acker, Miss A. V.; New York City; Dennis.
Africa, Mrs. W. G.; Manchester, N. H.; Ambassador.
Almberg, Miss Beatrice; New York City; Traymore.
Almberg, Mrs. H. E.; New York City; Traymore.
Altemiller, C. H.; Boston, Mass.; Marlborough-Blenheim.
Anderson, Mrs. H. S.; Philadelphia, Pa.; Haddon Hall.
Andrews, Miss Helen P.; Harlington, N. J.; Strand.
Aronson, Mrs. C. S.; Pittsburgh, Pa.; Traymore.
Aronson, C. S.; Pittsburgh, Pa.; Traymore.
Asendorf, Mrs. C. F.; Chicago, Ill.; Traymore.

B

Bailey, C. H.; Troy, N. Y.; Chalfonte.
Baker, Mrs. Chas. I.; Pittsburgh, Pa.; Traymore.
Baker, Leroy; Pittsburgh, Pa.; Traymore.
Barclay, Mr. T.; Chalfonte.
Barwitz, Mrs. F. R.; New York City; Marlborough-Blenheim.
Barrett, Mrs. J.; Indianapolis, Ind.; Ritz-Carlton.
Bates, Mrs. H. C.; Chicago, Ill.; Traymore.
Baxter, Mrs. E. O.; Glaslyn-Chatham.
Beaumont, Mrs. E. S.; Traymore.
Bockford, Mrs. W. C.; New York City; Traymore.
Berghorn, Mrs. C. W., Jr.; New York City; Haddon Hall.
Bennett, Miss B.; Chalfonte.
Berne, H. C.; Cleveland, Ohio; Breakers.
Berne, Mrs. H. C.; Cleveland, Ohio; Breakers.
Boas, C. H.; Reading, Pa.; Chalfonte.
Bragdon, J. W.; Boston, Mass.; Haddon Hall.
Brewer, E. D.; Atlanta, Ga.; Traymore.
Brombacher, Mrs. J.; Los Angeles, Cal.; Clarendon.
Brown, Mrs. W. S.; Milwaukee, Wis.; Traymore.
Brownell, Mrs. H. R.; Detroit, Mich.; Traymore.
Bridges, Albert; Albany, N. Y.; Ritz-Carlton.
Burns, Mrs. James; Petersburg, Va.; Senator.
Byrne, W. E.; Atlantic City, N. J.
Byrne, Mrs. W. E.; Atlantic City, N. J.
Barrett, Mrs. W. J.; Indianapolis, Ind.; Ritz-Carlton.
Barber, W. C.; Atlantic City, N. J.; 204 Franklin Ave.
Barnes, Mrs. Albert M.; Cambridge, Mass.; Traymore.
Barnum, Mrs. D. D.; Boston, Mass.; Traymore.
Baskit, Mrs. H. C.; Detroit, Mich.; Traymore.
Basquin, Mrs. E. E.; Bronx, N. Y.; Marlborough-Blenheim.

Baumgartner, Dr.; Greenville, Pa.; St. Charles.
Baumgartner, Mrs.; Greenville, Pa.; St. Charles.
Baxter, Mrs. L. S.; Harlington, N. J.; Strand.
Beeden, Mrs. George; Jersey City, N. J.; Chalfonte.
Beeden, Miss Harriet; Jersey City, N. J.; Chalfonte.
Bennett, Mrs. C. E.; Binghamton, N. Y.; Craig Hall.
Bigelow, Mrs. Lucius S.; Buffa.o, N. Y.; Chalfonte.
Birch, Mrs. H. E.; Philadelphia, Pa.; Brighton.
Bischoff, Mr.; Savannah, Ga.; Traymore.
Blackwell, E. G.; New York, N. Y.; Haddon Hall.
Blowers, Mrs. Wm.; New York City; Strand.
Board, V. L.; Denver, Col.; Traymore.
Bonneau, Jos.; New York City; Seaside.
Bonneau, Mrs. Jos.; New York City; Seaside.
Breen, Mrs. C. J.; Chicago, Ill.; Traymore.
Breen, C. J.; Chicago, Ill.; Traymore.
Brennan, James; Atlantic City, N. J.; 113 N. Virginia.
Brennan, Mrs. J.; Atlantic City, N. J.; 113 N. Virginia.
Brown, A. J.; Concord, N. H.; Traymore.
Brown, C. E.; New York City; Haddon Hall.
Brown, Mrs. J. H.; Philadelphia, Pa.; Haddon Hall.
Broadwater, C. C.; New York City; Haddon Hall.
Blome, Mrs. Geo. S.; Baltimore, Md.; Clarendon.
Bryant, J. F.; Atlantic City, N. J.; 6 N. North Carolina Ave.
Buckley, L. H.; Rochester, N. Y.; Traymore.
Buchanan, P. R.; Hartford, Conn.; Traymore.
Burke, Mrs. E. J.; Indianapolis, Ind.; Marlborough-Blenheim.
Burns, Mrs. C. E.; New York City.
Burke, Mrs. E. J.; Indianapolis, Ind.; Marlborough-Blenheim.
Burns, Mrs. C. E.; New York City; Traymore.
Butler, Mrs. F. L.; Atlanta, Ga.; Traymore.

C

Cahhoun, J. W.; Middletown, Pa.; Wellsboro.
Cairns, Mrs. J.
Carney, J. F.; Utica, N. Y.; Traymore.
Cauley, Mrs. F. F.; Chicago, Ill.; Strand.
Chapman, D. W.; Chicago, Ill.; Strand.
Chapman, Mrs. D. W.; Chicago, Ill.; Strand.
Carmichael, G.; Des Moines, Iowa; Traymore.
Clenton, Mrs.; Worcester, Mass.; Haddon Hall.
Cole, Mrs. J. M.; New York City; Traymore.
Colloway, Mrs. B. M.; Ambassador.
Connars, T. A.; Mt. Vernon, N. Y.; Bothwell.
Comell, J. A.; New Jersey; Traymore.
Conner, Frank; Middletown, Pa.; Wellsboro.
Cook, G. R.; Boston, Mass.; Chalfonte.
Cooper, James; Utica, N. Y.; Traymore.
Crawford, D. L.; Tryron, Pa.; Haddon Hall.
Crossman, T. E.; New York City; Chalfonte.
Crukshant, Mrs. Frank; Decatur, Ill.; Traymore.
Crukshant, Frank; Decatur, Ill.; Traymore.
Curfwan, Mrs. F. G.; Chalfonte.
Cutchinson, Mrs. F. R.; Long Branch, N. J.; Traymore.
Campbell, L. L.; New York City; Strand.
Canter, Mrs. G. D.; Cleveland, Ohio; Chalfonte.
Carkeek, Mrs. H. T.; Philadelphia, Pa.; Strand.
Cassinelli, Lewis; Newark, N. J.; Marlborough-Blenheim.
Collen, Mrs. A. W.; Cleveland, Ohio; Traymore.
Collins, Mrs. J. C.; Rochester, N. Y.; Colton Manor.
Coldwell, C. B.; New York City; Traymore.
Clark, Mrs. C. B.; Boston, Mass.; Traymore.
Coles, Mrs. G. M.; New York City; Ambassador.
Collins, Morton; Atlantic City, N. J.; Atlantic City Gas Co.
Cooper, Steward; Charleston, S. C.; Strand.
Colsworth, D. J.; Philadelphia, Pa.; 102 S. Vassar Ave.
Couney, Dr. M. A.; Atlantic City, N. J.; 2101 Boardwalk.
Crane, Mrs. Wm.; New York City; Marlborough-Blenheim.
Creviston, A. E.; Atlanta, Ga.; Traymore.
Crouch, Mrs. N. D.; Youngswood, Pa.; Raleigh.
Crowley, M. J.; Binghamton, N. Y.
Crouch, Mrs. W. B.; New York City; Raleigh.
Cumminga, B. E.; Philadelphia, Pa.; Breakers.

D

Dalsy, Geo. E.; Middletown, Pa.; Wellsboro.
Davies, Mrs. J. E.; Chicago, Ill.; Traymore.
Davis, E. H.; Scranton, Pa.; Haddon Hall.
Davis, Mrs. E. R.; Scranton, Pa.; Haddon Hall.
Davis, R. N.; Chicago, Ill.; Traymore.
Decker, Mr.; Breakers.
Devine, Mrs. W. A.; New Brunswick, N. J.; Strand.
Doane, Miss Julianne; Chicago, Ill.; Traymore.
Dolson, W. L.; Baltimore, Md.; Haddon Hall.
Dayton, D.; Chicago, Ill.; Traymore.
Davis, Mrs. H. P.; West Collingswood, N. J.; Strand.
Deeves, Dick; Brooklyn, N. Y.; Dennis.
Devine, W. A.; New Brunswick, N. J.; Strand.
Diedrich, Mrs. H. J.; Trenton, N. J.
Dillon, Mrs. H. J.; Coney Island, N. Y.; Chalfonte.
Dingwall, T. E.; Binghamton, N. Y.; Craig Hall.
Downs, W. F.; New York City; Seaside.
Downs, Mrs. W. F.; New York City; Seaside.
Drew, Richard P.; Harrisbrug, Pa.; New Holland.
Dunker, Wm. F.; Cincinnati, Ohio; Traymore.

E

Ebbert, C.; Pittsburgh, Pa.; Haddon Hall.
Eustace, Mrs. J. H.; Chicago, Ill.; 22 N. Laclede Place.
Evans, Mrs. David M.; Brooklyn, N. Y.; Bothwell.
Eysenbach, Mrs.; Hartford, Conn.; Traymore.
Ehrenzeller, Mrs.; New Brunswick, N. J.; Glaslyn.
Elbert, Mrs. L.; St. Joseph, Mo.; Dennis.
Eldredge, N. E.; New York City; Traymore.
Evans, Mrs. L. J.; Philadelphia, Pa.; Elberon.

F

Ferguson, Mrs. B. B.; Portsmouth, Va.; Strand.
Fish, A. L.; Brooklyn, N. Y.; Shelburne.
Fish, Mrs. A. L.; Brooklyn, N. Y.; Shelburne.
Folger, Wallace M.; Mt. Union, Pa.; Haddon Hall.
Francisco, Mrs.; Newark, N. J.; Marlborough-Blenheim.
French, Eazel; Fond du Lac, Wis.; Traymore.
Frick, Mrs. J. A.; Allentown, Pa.; Traymore.
Fulweiler, Mrs. W. H.; Philadelphia, Pa.; Traymore.
Fitzgerald, Mrs. John J.; Holyoke, Mass.; Haddon Hall.
Follansbee, John; Pittsburgh, Pa.; Traymore.
Foster, Mrs. G.; Brooklyn, N. Y.; Traymore.
Foster, George; Brooklyn, N. Y.; Traymore.
Fox, Mrs. M. C.; Philadelphia, Pa.; Seaside.
Frazer, Mrs. E. H.; Battle Creek, Mich.; Marlborough-Blenheim.
Friedman, Mrs. A.; Cleveland, Ohio; Ambassador.
Fuller, Mrs. C. C.; New York City; Ritz-Carlton.

G

Gibson, John H.; Cincinnati, Ohio; Chalfonte.
Gibson, Mrs. John H.; Cincinnati, Ohio; Chalfonte.
Ginsberg, Mrs. I. S.; New York City; Chalfonte.
Gleason, Miss A. M.; New York City; Chalfonte.
Gocks, F.; Chicago, Ill.; Traymore.
Goodman, M.; Bronx, N. Y.; Marlborough-Blenheim.
Gordon, Mr.; Atlantic City, N. J.
Gosa, Albert; Philadelphia, Pa.
Gould, Mrs.; Boston, Mass.; Haddon Hall.
Graham, C. R.; Newark, Cal.; Ritz-Carlton.
Groce, J. B.; Boston, Mass.; Ambassador.
Gaylord, Mrs. W. H.; New York City; Traymore.
Gardner, Mrs. A. I.; Pittsburgh, Pa.; St. Charles Place Cottage.
Ganzer, Mrs. H. H.; Norristown, Pa.; Traymore.
Gebhardt, Mrs. L. E.; Brooklyn, N. Y.; Dennis.
Gelshman, Mrs. L. J.; Philadelphia, Pa.; Marlborough-Blenheim.
Gelshman, L. J.; Philadelphia, Pa.; Marlborough-Blenheim.
Glaessner, Mrs. A. F.; Meriden, Conn.; Dennis.
Grady, Mrs. Stanley; Philadelphia, Pa.; Strand.
Greimer, Mrs. L. O.; Atlantic City, N. J.; 5 S. Wyoming Ave.
Griffiths, Mrs. N. J.; Brooklyn, N. Y.; Marlborough-Blenheim.

H

Haase, Mrs. E.; Milwaukee, Wis.; Haddon Hall.
Haddock, Mrs. O. T.; Cambridge, Mass.; Traymore.
Hall, Mrs. I. S.; Boston, Mass.; Chalfonte.
Hallett, W. L.; Boston, Mass.; Chalfonte.
Hammond, Henry; Baltimore, Md.; Haddon Hall.
Hansan, C.; Mt. Vernon, N. Y.; Bothwell.
Harber, Mrs. Robert; Chicago, Ill.; Traymore.
Harris, D.; Atlantic City, N. J.
Hartman, Mrs.; New York City; Haddon Hall.
Healy, J. H.; Springfield, Mass.; Traymore.
Herrman, Mrs. H.; Newark, N. J.; St. Charles.
Heyser, Mrs. E. L.; Philadelphia, Pa.; Traymore.
Higgins, Mrs. A. A.; Providence, R. I.; Marlborough-Blenheim.
Hodges, Mrs. G. B.; Williamsport, Pa.; Belvidere.
Heol, C. C.; Columbus, Ohio; Traymore.
Hoffman, Mrs. H.; Philadelphia, Pa.; Seaside.
Herricks, Robert; Atlantic City, N. J.
Huddell, J. D.; Upper Montclair, N. J.; Traymore.
Hungerford, Mrs. B. A.; Pittsburgh, Pa.; Traymore.
Hunter, M. D.; Reading, Pa.; Chalfonte.
Habermehl, J. P.; Philadelphia, Pa.; Shelburne.
Habbersett, Mrs. Geo. N.; Baltimore, Md.; Strand.
Hamilton, Henry D.; Detroit, Mich.; Traymore.
Hamburger, S.; Baltimore, Md.; St. Charles.
Handwork, Mrs. D.; Alliance, Ohio; Marlborough-Blenheim.
Hamilton, Mrs. D. M.; Detroit, Mich.; Traymore.
Hamilton, Mrs. Frank E.; New York City; Traymore.
Hamilton, Paul H.; Dayton, Ohio; Traymore.
Hamilton, Mrs. Paul H.; Dayton, Ohio; Traymore.
Harrison, Mrs. J.; Philadelphia, Pa.; Chalfonte.
Hartzell, A. C.; Greenville, Pa.; St. Charles.
Hartzell, Mrs. A. C.; Greenville, Pa.; St. Charles.
Harper, J. Frank; Baltimore, Md.; Haddon Hall.
Harper, Mrs. J. F.; Baltimore, Md.; Haddon Hall.
Harper, Miss Elizabeth; Baltimore, Md.; Haddon Hall.
Harris, C. A.; Cleveland, Ohio; Ambassador.
Haffner, R. W.; New York City; Traymore.
Heffner, Mrs. R. W.; New York City; Traymore.
Herrman, Mrs. H.; Newark, N. J.; St. Charles.
Hills, Mr.; Washington, D. C.; Strand.
Hills, Mrs.; Washington, D. C.; Strand.
Hislop, S.; New York City; Haddon Hall.
Hoffman, S. V.; Baltimore, Md.
Hoffman, Mrs. E. V.; Baltimore, Md.
Hoffstetter, C. H.; Erie, Pa.; Marlborough-Blenheim.
Humphreys, F. W.; New York City; Traymore.
Hungerford, B. A.; Chicago, Ill.; Traymore.
Hungerford, Mrs. B. A.; Chicago, Ill.; Traymore.

I

Inman, Mr. A.; Worcester, Mass.; Haddon Hall.
Inman, Mrs. A.; Worcester, Mass.; Haddon Hall.
Inman, Miss M.; Worcester, Mass.; Haddon Hall.
Irwin, Mrs. L. F.; Brooklyn, N. Y.; Traymore.

J

Jackson, Carl D.; Madison, Wis.; Traymore.
Jay, Mrs. G. H.; San Juan, Porto Rico; Ambassador.
Johnson, Allen J.; Atlantic City, N. J.
Johnson, J. Albin; Atlanta, Ga.; Traymore.
Jeffers, Miss Nellie; Toronto, Can.; Runneymede.
Jeremier, Mrs. E. G.; New York City; Strand.
Jeremier, Robert; New York City; Strand.
Jones, E. W.; New York City; Traymore.

K

Kallsledt, Mrs.; Chicago, Ill.; Strand.
Karins, N. F.; Atlantic City, N. J.
Karins, Mrs. E. F.; Atlantic City, N. J.
Karshner, Mrs.; New York City; Marlborough-Blenheim.
Kennedy, M. G.; Philadelphia, Pa.; Marlborough-Blenheim.
Keppelman, Katherine; Reading, Pa.; Strand.
Kessler, Mrs.; New York City; Ambassador.
Killam, Mrs.; Detroit, Mich.; Traymore.
King, Mrs. F.; Pittsburgh, Pa.; Strand.
Klumpp, Mrs.; Philadelphia, Pa.; Traymore.
Knap, Dr. Wm. H.; Atlantic City, N. J.; 22 Laclede Place.
Knap, Mrs. Wm. H.; Atlantic City, N. J.; 22 Laclede Place.
Knight, Mrs.; Philadelphia, Pa.; Traymore.
Knowles, Mrs. M.; New York City; Haddon Hall.
Krake, Mrs. S. G.; New York City; Chalfonte.
Krake, Miss Irene; New York City; Chalfonte.
Kahle, Mrs. R. L.; St. Louis, Mo.; Traymore.
Kolisher, L.; Brooklyn, N. Y.; Dennis.
Kahn, Mrs. Albert E.; Hamilton, Ohio; Shelburne.
Kane, Mrs. Wm.; Philadelphia, Pa.; Bothwell.
Kelly, Robert; Denver, Col.; Traymore.
Kelly, Mrs. Geo. J.; Lynn, Mass.; Traymore.
Kelly, J. Paul; Dallas, Texas; Marlborough-Blenheim.
Ketchum, E. L.; Newark, Ohio; Clarendon.
Kirshman, Samuel; Atlantic City, N. J.; 9 S. New Jersey Ave.
Klein, J.; Long Island, N. Y.; Breakers.
Knight, Mrs. W. H.; Cleveland, Ohio; Chalfonte.
Krah, E. A., Jr.; Pittsburgh, Pa.; Traymore.
Krah, Mrs. E. A.; Pittsburgh, Pa.; Traymore.
Krassner, I.; New York City; Breakers.
Kidd, Mrs. J. H. Y.; Poughkeepsie, N. Y.; Chalfonte.
Kyle, J. P.

L

Langlier, Mrs. Jos.; Providence, R. I.; Strand.
Lattimer, Mrs.; Columbus, Ohio; Traymore.
Lattimer, Miss Bane; Columbus, Ohio; Traymore.
Leeds, L. B.; New York City.
Leonard, Mrs.; Philadelphia, Pa.; Traymore.
Leonard, Mr.; Philadelphia, Pa.; Traymore.
Lewis, R. H.; Detroit, Mich.; Traymore.
Lowell, Mrs. C. C.; Chicago, Ill.; Traymore.
Luther, Mrs. C. A.; Chicago, Ill.; Traymore.
Lambert, Mrs. D. N.; Brooklyn, N. Y.; Grossman's
Landt, J. L.; Syracuse, N. Y.; Ambassador.
Langeler, Mrs. Jos. A.; Providence, R. I.; Strand.
Ledyard, E. H.; Philadelphia, Pa.; Ambassador.
Lee, Frank; Newark, Ohio; Clarendon.
Leeds, Chas.; Atlantic City, N. J.; A. C. Gas Co.
Lege, E. G.; Galveston, Texas; Marlborough-Blenheim.
Lesley, R. N.; Bronx, N. Y.; Marlborough-Blenheim.
Lious, O. J.; Chicago, Ill.; Traymore.
Loebell, Mrs. H. O.; New York City; Traymore.
Lolmeyer, H. B.; Detroit, Mich.; Traymore.
Lynn, P. W.; Battle Creek, Mich.; Traymore.
Lytle, Miss Jeanette; Cleveland, Ohio; Chalfonte.

Mc

McCleary, Mrs. W.; Freeport, Ill.; Shelburne.
MacDonald, Mrs. D.; New York City; Seaview Golf Club.
McKana, Mrs. G. E.; Traymore.
McLaughlin, Mr. and Mrs.; Philadelphia, Pa. Traymore.
McMillan, B. J.; Atlantic City, N. J.
McSorley, Wm. J.; Utica, N. Y.; Traymore.
McWilliams; Atlantic City, N. J.
McAllister, C. L.; Philadelphia, Pa.; Traymore.
McCarthy, G. D.; New York City; Traymore.
McGraw, Mrs. S.; New York City; Dennis.
McIlhenny, Miss S. B.; Philadelphia, Pa.; 115 S. Newton Ave.
McKay, Mrs. Wm. E.; Boston, Mass.; Traymore.
McKee, J.; Brooklyn, N. Y.; Haddon Hall.
McLaughlin, Edw.; Atlantic City, N. J.; A. C. Gas Co.

M

Mathews, C. B.; Atlantic City, N. J.; 22 N. Florida Ave.
Mat ews, Mrs. C. H.; Atlantic City, N. J.; 22 N. Fl rida Ave.
Maloney, Andrew P.; Philadelphia, Pa.; 224 Seaside Ave.
Meagher, T. F.; Atlantic City, N. J.; 124 Boardwalk.
Merkt, Mrs. Agnes; Brooklyn, N. Y.; St. Charles.
Miller, W. H.; Pittsburgh, Pa.; Haddon Hall.
Mitchell, Mrs.; Chicago, Ill.; Traymore.
Moecker, N., Jr.; Harney, Ill.; Chalfonte.
Moffat, Mrs. F. W.; Watson, Ont.; Marlborough-Blenheim.
Morosco, Annette; Atlantic City.
Moss, E. J.; Atlantic City.
Mueller, Mrs. Robert; Decatur, Ill.; Traymore.
Murphy, Charles J.; Albany, N. Y.; Ritz-Carlton.
Murray, J. Frank; Springfield, Mass.; Dennis.
Murray, Mrs. J. Frank; Springfield, Mass.; Dennis.
Myers, Mrs. C. S.; New York City; Chalfonte.
Maddux, O. L.; Gastonia, N. C.; Breakers.
Madee, B. E.; Chicago, Ill.; Marlborough-Blenheim.
Mentzer, H. C.; Pittsburgh, Pa.; Traymore.
Mentzer, Mrs. H. G.; Pittsburgh, Pa.; Traymore.
Messina, L. J.; New York City; Traymore.
Memory, Mrs. N. H.; Newark, N. J.; Haddon Hall.
Millspaugh, Mrs. G. M.; Philadelphia, Pa.; Strand.

Miller, Herman J.; Atlantic City, N. J.; 2239 S. Connecticut Ave.
Montgomery, F. N.; New York City; Traymore.
Morier, Mrs. Lawrence; Rochester, N. Y.; Ventnor.
Morier, Lawrence; Rochester, N. Y.; Ventnor.
Morris, Edgar, Jr.; Washington, D. C.; Traymore.
Morris, Mrs. E.; Washington, D. C.; Traymore.

N

Nagle, J. A.; Atlantic City, N. J.; Amsterdam Apts.
Nesh, Mrs. C. A.; Davenport, Ohio; Marlborough-Blenheim.
North, Mrs.; Fort Wayne, Ind.; Breakers.
Nason, Jos. E.; New York City; Traymore.
Nicholas, Mrs. H.; Binghamton, N. Y.; Craig Hall.
Nicholas, H.; Binghamton, N. Y.; Craig Hall.

P

Parrish, E. H.; Cleveland, Ohio; Traymore.
Parkhurst, Mrs. Geo. W.; New York City; Traymore.
Penn, W. W.; Chicago, Ill.; Strand.
Pennell, Mrs. Geo. C.; New York City; Dennis.
Phillips, Mrs. Alfred I.; New York City; Haddon Hall.
Pluckner, Mrs. W.; Philadelphia, Pa.; Morton.
Pratt, B. E.; Bronx, N. Y.; Marlborough-Blenheim.
Punnett, H.; New York City; Haddon Hall.
Punnett, Mrs. H.; New York City; Haddon Hall.
Purcell, Miss B. M.; Harlington, N. J.; Strand.

R

Radcliffe, John T.; Brooklyn, N. Y.; Traymore.
Ratcliff, Mrs. T. C.; Baltimore, Md.; Traymore.
Read, Mrs. H. L.; Bronx, N. Y.; Marlborough-Blenheim.
Reeff, Mrs. H.; Coney Island, N. Y.; Chalfonte.
Regester, Mrs. R. G.; Baltimore, Md.; Clarendon.
Regester, Mrs. K.; Baltimore, Md.; Raleigh.
Regester, R. G.; Baltimore, Md.; Clarendon.
Reid, Mrs. W. F.; Philadelphia, Pa.; Morton.
Reinach, Mrs. H. B.; New York City; Marlborough-Blenheim.
Reinicker, Mrs. C. E.; Philadelphia, Pa.; Chalfonte.
Relyea, Wm.; Atlantic City, N. J.; A. C. Gas. Co.
Rinehart, H. C.; Patterson, N. J.; Traymore.
Roberts, Mrs. C. V.; Philadelphia, Pa.; Haddon Hall.
Roberts, Mrs. Clarence V.; Philadelphia, Pa.; Haddon Hall.
Roberts, Miss J. L.; Philadelphia, Pa.; Haddon Hall.
Roberts, Mrs. F. G.; Baltimore, Md.; Traymore.
Robertshaw, Mrs. G. A.; Youngwood, Pa.; Raleigh.
Rolston, Mrs. R. J.; Philadelphia, Pa.; Haddon Hall.
Richardson, H. E.; Philadelphia, Pa.; Strand.
Rusenow, Mrs. F. L.; Newark, N. J.; Alamac.
Rutz, Mrs. A. O.; Chicago, Ill.; Traymore.

S

Sachett, Mrs. J. A.; New York City; Seaside.
Sands, Mrs. J. M.; Dayton, Ohio; Traymore.
Schmidt, Mrs. Wm., Jr.; Baltimore, Md.; Traymore.
Schnerring, Chas. C.; Lorain, Ohio; Traymore.
Schull, Mrs. D.; Atlantic City.
Schutt, Mrs. H. L.; Buffalo, N. Y.; Chalfonte.
Segrave, Harold E.; Pittsburgh, Pa.; Continental.
Segrave, Mrs. H. J.; Pittsburgh, Pa.; Continental.
Smith, Mrs. Earl; Atlantic City, N. J.; Windsor Ave.
Smith, S. S.; Geneva, N. Y.; Haddon Hall.
Smith, Wm. P.; Brooklyn, N. Y.; Marlborough-Blenheim.
Smith, W. L.; Battle Creek, Mich.; Traymore.
Schland, Mrs. A.; Harrisburg, Pa.; Marlborough-Blenheim.
Staug, Mrs. G. H.; Coney Island, N. Y.
Steers, Mrs. Alvin; Coney Island, N. Y.; Chalfonte.
Stephens, Mrs. F. E.; Columbus, Ohio; Traymore.
Stephens, Miss Ruth; Columbus, Ohio; Traymore.
Stevens, W. C.; New York City; Traymore.
Stiles, L. S.; Brooklyn, N. Y.; Dennis.
Strausner, G. B.; Philadelphia, Pa.; Strand.
Solow, Mrs. A.; Brooklyn, N. Y.; Dennis.
Solon, A.; Brooklyn, N. Y.; Dennis.
Strasburger, R. L.; Baltimore, Md.; Traymore.
St. John, Charles; Atlantic City, N. J.; A. C. Gas Co.
St. John, E.; Atlantic City, N. J.; A. C. Gas Co.

T

Taylor, J. D.; Baltimore, Md.; Chalfonte.
Thomson, R. M.; Burlington, Vt.; Traymore.
Toombs, F. P.; New York City; Strand.
Toomey, John J.; Chicago, Ill.; Strand.
Tuttle, Mrs. W. B.; San Antonio, Texas; Traymore.

W

Wakehun, N. F.; New York City; Traymore.
Warran, Mrs. P. D.; Chicago, Ill.; Traymore.
Warrington, Ted; Atlantic City, N. J.; A. C. Gas Co.
Waterman, Chas.; Detroit, Mich.; Traymore.
Weeks, W. O.; Battle Creek, Mich.; Traymore.
Wells, John; Philadelphia, Pa.; Strand.
Wenchel, J. F.; Baltimore, Md.; Strand.
Wenchel, Mrs. J. F.; Baltimore, Md.; Strand.
Wolff, Mrs. A. H.; New York City; Traymore.
Wolf, Mrs. U. S.; New York City; Traymore.
Whitaker, M.; Atlantic City, N. J.; Leedom.

Y

Yetter, Mrs. L. N.; Atlantic City, N. J.; Revere Apts.
Young, Mrs. L. B.; Detroit, Mich.; Traymore.

Utilities Market Is Reactionary

Brooklyn Union and Empire Light Only Issues to Show Advance. Bond Market Off, With One Exception

New York, Oct. 24.—The Public Utilities market continued its reactionary tendency today, though one or two issues, notably Brooklyn Union and Empire Light were fractionally higher. In the bond section there were few movements other than recessions. Among those that lost a full point or more, compared with last week, was Hudson County Gas at 92. Losses of less than a full point were registered by American Light and Traction 6's at 111¼; Brooklyn Union 5's at 96¾; Columbia Gas, 95¾; Consolidated Gas Light and Power, 4½ per cent bonds, 91½; Pacific Gas 5's at 92; California Gas 5's at 95¼.

A solitary instance of an increase today was Michigan Light Co. 5's at 92, against 91 last week.

The Koppers Company staff is a convention in itself when it gathers at the company's booth. From the Pittsburgh office are H. B. Rust, C. J. Ramsburg, H. Lee, H. B. Kirkpatrick, D. E. Price, E. H. Bird, H. P. Roth and W. F. Sperr, all of whom are staying at the Traymore.

Donald McArthur and Reed Morris represent the Jersey City branch, and A. W. Grant, the St. Paul branch.

The Koppers Company booth contains a model of a Koppers by-product coke oven.

What Women Look At

Some years ago at county fairs, food shows, industrial expositions, and similar gatherings where some big-voiced orator talked himself hoarse explaining wonders of the modern scientific world to the curious crowds, what do you suppose dre wmost of the women? Mechanical washing machines.

Women surrounded every exhibit illustrating the machine at work. "Does it really get clothes clean? Is it hard to work or very dangerous?" they asked. They inquired about the cost of the machines and if it cost a great deal to run them. Although their questions revealed a great desire to be rid of the heaviest labor, they also showed a vast ignorance of the methods. Their husbands were right back of them too.

But today that's not what women look at. Any real observer of the present exhibition can give you that information. Women know all about washing machines. They don't hand around moth-like, but merely stop to learn about late models or discuss the advantages of their machine over another or to comment, "We shall have one of those next year. It's been hard work saving since the war." As the little song "Philosophy" goes, "Isn't it funny but it's true?" Don't times change fast these days.

Miss Reflex—in propria persona, Miss Claire Sterling—got delegates started right yesterday morning. At the Welsbach booth she pinned a carnation on each and every one.

"What's this going on?" asked a near-sighted delegate.

"A red carnation's going on right now," was Miss Reflex's ready response—and so it did!

L. B. Young, general manager of the Detroit Stove Company, has an able staff at the Garland exhibit. With Mr. Young are J. V. Peck, general field manager; T. J. Lyons, New England representative; and C. C. Williams, New York representative. The staff is so able that Mr. Young is able to take on somebody at golf occasionally on a basis of "a ball a hole." The "Garland" crowd is quartered at the Traymore.

Watchful waiting was still the policy of R. L. Kahle, yesterday, at the Quick Meal Stove booth, whose exhibits are lost in transit.

W. A. Dunkley, of the Urbana, Illinois, station of the Bureau of Mines, is quite sufficient to "tie up," as the ad men say, the Bureau with the gas industry. Mr. Dunkley is a gas engineer, now studying processes of manufacture of water gas from bituminous coal and also the purification of gas. He was superintendent of the Atlantic City Gas Company, having left Atlantic City about seven years ago to enter government service. Mr. Dunkley visited old friends at the Atlantic City plant yesterday.

Clarence J. Ferdon, A. J. Gonnoud and W. A. Morris, officials of Kings County Lighting Company, Brooklyn, toured the exhibit hall together yesterday.

D. J. Collins, vice-president of United Gas Improvement Company, got his copy of the daily edition of the American Gas Journal during a brisk walk on the Boardwalk yesterday morning. "That's service," he said.

Sell Year Round, Says Sales Committee.

Report Advocates 12-month Activity by Sales Department

"Sales effort must be maintained twelve months every year if customers of gas companies are to be expected to maintain enough interest to use gas appliances the year round."

That was a statement made yesterday afternoon at the opening session of the Commercial and Advertising and Publicity Sections in the Vernon Room of Haddon Hall, by William Gould, Boston, Mass., who, as chairman, presented the report of the Sales Stimulation Committee of the Commercial Section. Mr. Gould, in a vigorous fashion, presented the report which, in addition to briefly outlining the work accomplished during the past several months, made a plea for renewed and greater activity on the part of all sales departments.

The report, in part, follows:

As an industry, we advertise and tell the public that ours is a 365¼ day-a-year business, that we are always on the job, that is, we are always making gas, which is very true, but are we on the job 365¼ days in the year in our Sales Department?

Emphatically No! Now just as emphatically, Why Not? And what are our reasons for saying so? Let us ask ourselves a few questions. When do the manufacturers' salesmen have their lay-off or vacation? Answer—In the Wintertime. Why? Because business is slack at that time. Why? Because Gas Companies are not ordering anything. Why? Because they are selling very little. Why? Because they are not on their jobs 365¼ days a year, and think the Winter is the slack selling-time for gas appliances, and the sad truth of the matter is, that it generally proves out as they think, but it also proves to be just as busy a selling season as any other period, if they think it is and want it to be.

Does it just happen that in the companies where the Winter is considered the dull season for appliances, that it is also the poorest for gas output, or is it a natural result? We personally believe it is a natural result, for can we expect our customers to continue to be interested in using appliances, when the gas company has almost ceased sales efforts until the Spring and Summer come again?

Let us look at ourselves, fairly and frankly, and not lean on alibis or excuses to hide our slackness in this respect. Coal is our greatest competitor in heating water and in cooking, as well as in many cases in heating-rooms. This is the only fair excuse we've heard given for the attitude taken by many Sales Departments in letting up in their winter sales efforts. Now let's look at this competitor—COAL. Is it a worthy one for our gas? Is it as clean, as cheap, as instant, as convenient, as up-to-date, as easily handled, stored or paid for, as our Gas? Indeed, it is not, but for heating water and cooking, it is a survival, not of the fittest, but because of the easy-going line of least resistance—attitude taken by the Gas Companies and the gas appliance manufacturers.

Presented Report To Commercial Section

WILLIAM GOULD,
Chairman Sales Stimulation Committee

June Gas Sales Jump

In all of the charts we have seen of gas in large and small companies of the North and West, there are a few common characteristics. The first noticeable is that in the month of June, the sales of gas jumps over the preceding month in every case, Why?

It's a pitiable fact, but the use of gas ranges takes place in many cases when it's too inconvenient to use coal. It should be that coal would be used only when gas was not obtainable, and yet we know coal is an unworthy competitor. Where is the trouble, where does such a condition exist in any other industry? A poor competitor should be a cinch to take care of, if we were all thoroughly sold on our own product, but not as yet sold to the point of being

ashamed of giving as an excuse this out-of-date and dirty Coal Alibi.

Now if the June output jumps for this reason above stated, what happens when the cold weather starts in. In looking over the October sales in companies selling as high as a hundred million a month, down to the smallest companies, you will find a decided decrease under the previous month of September almost without an exception in the Northern Companies. This in face of the fact that it is getting colder and the days are shorter, when gas is needed both for heating and lighting more than September. The reason for the decrease in gas sales at this time is again our most unworthy competitor—COAL. Gas ranges are substituted with coal ranges, and hold their position until the warm weather again puts in an appearance. Does this situation bring about a decided decrease in the sale of appliances during the Winter? Or will you agree with us that the decreased use of gas appliances in the Winter results from our believing our sales of appliances must be poor in the Winter and are consequently so?

To our mind we must keep up our sales efforts and sales interest twelve months every year, if we expect our customers to maintain enough interest in our appliances to use them all year round. Our slacking up in advertising and in having regular monthly sales in the Winter, gives our customer a chance to forget about using his gas appliances at that time with the resultant dropping off in gas sales during this period.

The Sales Departments of the Gas Companies are only just emerging from the valley of the shadow of death, and are really making themselves important even to the financial heads of their companies, but this to our mind is not going far enough. A Sales Department properly managed is a developer and builder of the entire organization, the only means of expansion primarily starts by the efforts of this department. It is absolutely necessary to every other department in the company, for without it adding appliances and customers to mains, taking care of removals of customers and substituting new appliances for old and used-up ones, the company would gradually wither up and die, and to our mind the success of any company is directly traceable to the activity of its Sales Department, as it is in every other successful business. If this is so, why shouldn't the other departments of our companies be brought in closer contact with the sales department?

It will benefit the whole organization if the special sales are explained and the idea sold to the other departments, the members of whom in turn could inform their acquaintances and friends of what special sale is being carried on. This would act as the greatest publicity stunt ever featured, and if prospects handed in by these other departments to the salesmen turned into sales, some special arrangement could be made to give these prospect-hunters some suitable and worth-while commissions or prizes.

The office-force, meter-readers, bill-collectors and the whole works in one endeavor to put across the sale featured, will eventually be the kind of practical co-operation that will develop a company and give the right kind of service to its customers. Gas may only be used or sold through appliances, consequently the more appliances sold by the entire organization, the bigger the company will grow. Every gas company, no matter how small, has a latent selling force in its employees other than salesmen, which if it could be brought to bear on the situation would materially increase the development of that company to amazing proportions. Enlist your whole organization in this developing campaign. The most important time to speed up sales efforts is to our mind at the time when people are returning from vacations and are getting ready to settle down in preparation for the Winter; this is generally in September.

September a Good Month for Sales

Sales efforts will bring in more results at this time, as on keeping the sale and use of our appliances in the minds of our people will have a great influence on how much and how often they will use gas as their winter fuel. Advertisements in local papers, which call attention to sensible reasons and facts why they should use gas in the Fall and Winter; special sales other and in addition to room heaters at this time will help. Give comparative daily costs of their coal with the same work accomplished with less labor, dirt and trouble by using gas all the year round, put such information on your bills, have it noticeable by signs in your office and show windows, selling the idea first to your own organization and giving it comparative costs of coal with gas. Be sure you and your representatives are confident that it would be a great help, convenience and saving for your customers to use more gas and less coal in the Winter and Fall, and if you cannot convince your customers to use gas alone, get them to use some gas where heretofore they have been using coal, but make a start in this direction and get some of it used, even if you cannot secure an all-gas kitchen.

The big boom in sales of gas appliances should come in the Fall and last all Winter, as all kinds of successful sales of gas appliances have been held in the Wintertime, wherever the desire and confidence and energy are present.

The market for gas appliances is all the year round and because we are not active all the year, does not change this fact.

If the output of gas depends on the number of appliances sold, why shouldn't the sales department be interested in the output of gas, as well as appliances? To our mind they should be interested in the sales of gas and every month should keep in touch with it, as well as often knowing the daily and hourly output. In every gas plant they are able to tell how much gas they make every hour or every day, but have to wait until meters are read at the end of every month, and what isn't metered is the unaccounted for, but what day of the week or hour of the day it has been used is a question.

Finding the Uses of Gas

By means of knowing the hourly consumption of gas, we could better judge for what it is and is not being used for, and could govern ourselves accordingly in our sales efforts. For instance, in the Summer months before meal time we would see an increase in the output of gas, and know its amount, whereas if we read our output in the wintertime at the same hours, we would readily be able to prove to ourselves whether or not coal ranges are affecting

our winter output, as we have heretofore suggested. This is only one use of keeping in touch with the hourly output of gas, and could be used to prove whether you have a lighting load or not, and whether your hot-water load on wash days was nearly the same in Winter as it showed in Summer. This would keep you from thinking your town and company is different from others, and would give you something definite to go by and not have to take any one's ideas on the matter. Know when and where your gas is being used, and fill in the needs or valleys accordingly by sales efforts.

How the Industry Started

Another suggestion we would like to bring to your mind and attention and that is the subject of gas lighting. It might be well for us at this time to say that the gas industry was started by the use of gas for lighting. The foundation of the electric industry was also its lighting business. At the present time approximately 25 per cent of the manufactured gas sold in the United States is sold for gas lighting and yet what interest, enthusiasm and efforts are being made by gas company members to hold on to this business or to develop it. Very little, if any, and we feel that the great majority of us are guilty and have not even a real good alibi to fall back on, except our own blindness to a good paying part of our business. Electric lighting has been given as the alibi for why we have not done something more in regard to our gas lighting, and it is fair to say at this time that this is a fair competitor, but is no fair reason or excuse to offer why we should let any competitor walk by us without making some real consistent effort. We might go even so far as to suggest that there are more gas outlets for lighting in the United States today than there are electric outlets. As a matter of fact, there are more people using gas in the United States today than those using electricity.

Before finishing your committee wishes to present the following facts and figures which show the sales of appliances and sales of gas of a holding company for the last eight years, not including 1922, and this chart shows and proves conclusively that these companies show a direct increase of gas output in the months and years where the most gas appliances were sold, and even better than that, they show that the influence on the gas sales have been almost immediately influenced when the appliances have been successfully sold.

Jobbing Sales Percentages

Table No. 1 showing the percentage decrease from the highest jobbing sales month of the year and Table No. 2 a chart showing the percentage decrease from the highest gas sales month of the year, and in explanation wish to say that if you will look over these charts in the future and study them, we feel sure that you will be convinced that the answer for your gas sales is immediately and directly influenced proportionately with the amount of appliance sales results. We might say also, that in March, 1914, the jobbing sales were 80 per cent below the highest month, June, in that year, or taking September, 1918, the jobbing sales were 47 per cent below the June sales of that year. The summary given below Table No. 1 shows the average best jobbing months and the average poorest jobbing months. On Table No. 2 this same method has been used, as in March, 1914, the output in that month was 27 per cent below the output in September and so on and the average of all these months show the best output months and on the opposite side the average poorest gas sales month. You will readily see in making a comparison between the poorest appliance sales months on Table 1 and the poorest gas sales months on Table 2 are approximately the same, as well as the best jobbing sales are the best for gas sales months.

TABLE 1

PERCENTAGE DECREASE FROM HIGHEST JOBBING SALES MONTH OF THE YEAR

	1914	1915	1916	1917	1918	1919	1920	1921	Average
Jan.	80	79	73	31	59	70	56	42	61
Feb.	80	77	71	52	72	69	67	72	70
Mar.	80	68	69	49	64	66	66	67	66
Apr.	64	45	42	39	48	57	46	36	47
May	41	—	3	22	24	23	10	19	18
June	—	11	15	—	—	—	11	—	5
July	50	31	19	10	31	6	26	30	25
Aug.	53	36	23	28	34	28	23	17	30
Sept.	58	44	32	24	47	33	—	23	32
Oct.	62	39	23	41	44	18	41	23	36
Nov.	64	44	—	48	42	7	48	10	33
Dec.	71	59	9	52	49	1	51	35	41

Average Best Jobbing Months	Average Poorest Jobbing Months
May	Jan.
June	Feb.
July	Mar.
Aug.	Apr.
Sept.	Oct.
	Nov.
	Dec.

TABLE 2

PERCENTAGE DECREASE FROM HIGHEST GAS SALES MONTH OF THE YEAR

	1914	1915	1916	1917	1918	1919	1920	1921	Average
Jan.	14	24	25	28	25	19	26	23	23
Feb.	17	29	30	30	29	25	26	28	27
Mar.	27	34	35	39	33	29	31	35	33
Apr.	27	32	35	35	28	25	25	25	29
May	25	30	35	33	26	27	26	26	28
June	10	20	19	18	11	11	14	12	14
July	14	16	18	15	15	10	13	15	14
Aug.	1	10	9	9	9	1	10	12	8
Sept.	—	—	—	—	—	—	—	—	—
Oct.	13	15	13	12	19	7	10	9	12
Nov.	12	17	17	18	15	11	14	33	16
Dec.	10	17	16	18	23	11	21	22	17

Average Best Output Months	Average Poorest Gas Sales Month
June	Jan.
July	Feb.
Aug.	Mar.
Sept.	Apr.
Oct.	May
	Nov.
	Dec.

Time for Gas Plant Building is Now.

Carbonization Committee Report Advocates Quick Action.

A warning note was sounded in the report of the Carbonization Committee as to building conditions in the United States affecting the gas industry. J. H. Taussig, U. G. I. Contracting Company, Philadelphia, chairman of the builders' section of the committee, pointed out in his report that gas plants should make preparations at once for any construction work they have ahead. All indications, he urged, are that prices will increase in the near future in building lines with consequent increased cost for any extensions of plant that may be found necessary.

The Technical Committee also reported on Carbonization and Complete Gasification of Coal. Two papers were presented in this section, one entitled "The Carbonization of Coal with Blue Gas and Producer Gas," by W. R. Morris, Assistant Superintendent, Seaboard By-Product Coke Co., and the other, entitled "Outside Producers at Racine," by H. R. Broker, Racine, Wisconsin. The latter paper was originally delivered before the 1922 Convention of the Wisconsin Gas Association and was published in full in the April 8, 1922, issue of the American Gas Journal. The former paper is given in part in the following.

The work of Section V was concerned with the modification or revision of standard data sheets. The report of this section as well as of the others is given below in brief form.

The second main section of the Committee, the Low Temperature Carbonization Section, the chairman of which was J. D. Davis, Bureau of Mines, Pittsburgh, Pa., presented three papers: Low Temperature Tar and Its Evaluation by the Chairman of the Section, Internally Heated Retorts, by C. V. McIntyre, Consulting Engineer, New York City, and Methods of Transferring Heat to the Coal Mass in Low Temperature Carbonization with Externally Heated Retorts, by Harry A. Curtis, Clinchfield Carbocoal Corporation, South Clinchfield, Va. These papers are given below in part.

The third main section of the Committee, Complete Gasification of Coal Section, made its report through its chairman, R. G. Porter, Philadelphia Suburban Gas & Electric Co., Chester, Pa. He emphasized the attraction held by the complete gasification process for the small plant operator, those producing 300,000 cubbic feet of gas a day and less. The entire mechanism of the complete gasification of coal was discussed in detail and numerical data was given to indicate the yields of tar, gas, etc., and their relation to one another.

REPORT OF OPERATORS' SECTION

E. H. Bauer, *Chairman*, Providence Gas Co., Providence, R. I.

Outline of Work

The work as outlined for this section of the Committee at the beginning of the year 1922 was as follows:

1. To keep in touch with the latest developments and operating results of various types of plants.
2. Owing to the lower B.t.u. standard now existing in many plants throughout the United States and the possibility of a still lower standard, the Committee was to obtain information that might help solve the problem as to the most economical kind of gas to make for various localities.
3. To educate operators of coal gas plants to compile their operating results on certain standard basis, so that the figures would be comparable.
4. To investigate coking and non-coking coals.
5. To modify or revise the standard data sheet now recommended by the A.G.A. and which was made up by a committee of the A.G.I. several years ago.
6. To study the results obtained on carbonizing apparatus, using outside producer plants and blue gas plants to generate gas for heating this carbonizing apparatus.
7. To standardize upon the type and number of instruments a carbonizing plant should have in order to give results which will be valuable to the industry at large.
8. To investigate results obtained on carbonizing screen and run-of-mine gas coals.

Work Covered

The Operators' Section for the previous year attempted to obtain operating results from plants, but it was found it was almost impossible to compare results of these plants due to lack of certain information on each plant.

It was also found that there were so many variables entering into the operating conditions under which the plants were running that, although all the information asked for on the old data sheet was obtained, it would still not make results on these plants comparable.

It was agreed by the Committee that no operating results can be reported this year other than new developments in the art, but the Committee would first try and formulate some sort of a yard stick by which results should be reported.

Section I—

THE CARBONIZATION OF COAL WITH BLUE GAS AND PRODUCER GAS

W. Reed Morris, *Assistant Superintendent*, Seaboard By-Product Coke Co.

The object of this paper is to present the results obtained from the blue gas and producer gas plant operations; to make comparisons of their over-all economy, and to consider the advantages and utility of each type of plant as adjuncts to a By-Product coke plant. We present this data in the full realization of its especial importance at this time when the two-stage gasification of bituminous coal is receiving so much attention be-

cause of high costs of manufacturing gas and still further because of the condemnation of general use of raw coal. While the process used is not complete gasification, it is an advanced step in that direction. The use of producer gas or blue gas for oven heating disposes of the less saleable sizes of coke and practically doubles the amount of saleable coal gas per ton of coke to be sold.

As the B.t.u. requirements covering the sale of gas are lowered, the coke to be sold can be still further reduced by making additional blue gas or producer gas and mixing it with the coal gas, and it naturally follows that the lower the B.t.u. standard, the nearer the processes approach complete gasification.

The By-Product plant at Seaboard consists of 165 Koppers type ovens built in 3 batteries of 55 ovens each. Two of these batteries are of the cross-regenerative combination type, permitting the use of coal gas, blue gas or producer gas while the third battery can be heated only with coal gas or blue gas. Since the construction of the producer plant the two combination type batteries have been heated continuously with producer gas, and during last winter, when the coke market was still poor, blue gas was used to heat the third battery and for mixing with coal gas.

Blue Gas Plant

I. Description of Plant.
II. Operating Data.
III. Heat Balance.

[The plant was described in detail. Attention was called to the "automatic control" mechanism which maintains the cycle of operation with extreme accuracy and makes the machines practically fool-proof.]

[Detailed tables, indicating the operation of the plant and showing how the heat balance was calculated, were given.]

Producer Plant

I. Description of Plant.
II. Operating Data.
III. Heat Balance.

[The second part of the article was concerned with the operating characteristics and the description of the apparatus in the plant and also included a detailed table of calculations, showing the heat balance in a producer gas plant.]

Summary

(a) The overall or the gasification and combustion efficiency of producer gas is much greater than that of blue gas as shown by the following comparison:

	Producer Gas	Blue Gas
Pounds dry Fuel to carbonize a ton of coal	225	295
Pounds Carbon to carbonize a ton of coal	199	261

In other words, only 76.3 per cent as much fuel is required with producer gas as blue gas to carbonize coal.

(b) Poorer and less saleable grades of coke can be more readily used in a producer plant.

(c) Producer operation requires much less labor per ton of fuel gasified.

Carbonizing 50 tons per day per producer and 50 tons per day per blue gas generator the labor is:

Producer 0.51 man hours per ton gasified
Blue Gas 1.50 man hours per ton gasified

(d) Continuity of operation of a Producer Plant is such that the machines run for weeks and months at a time with no attention other than watching that the conditions set are regularly maintained. The possible mechanical derangements are a minimum. This must appeal particularly to the water gas man familiar as he is with the intermittent operation required with a water gas generator.

(e) Mixing of Blue Gas and Producer Gas with Coal Gas for the purpose of obtaining a specified B.t.u. can be done with equal ease. The amount of these gases which can be mixed to get any B.t.u. are shown on Chart, Fig. 13.

(f) The manufacturing cost of blue gas per million B.t.u.'s is fully 40 per cent greater than producer gas. This cost is based on the same value for generator fuel in each case, which is decidedly unfair to producer gas as it uses inferior, and therefore, cheaper grades of coke.

Conclusions

As a part of a large by-product plant furnishing gas for city use a blue gas plant has advantages over a producer plant in times of coal shortages, caused by strikes or other contingencies beyond the control of the manufacturer. Also in a business depression, when the market for coke is poor and prices low, a blue gas plant is desirable because more blue gas than producer gas can be mixed with the coal gas, which also means that a greater percentage of coke can be turned into gas.

However, for anything like a steady operation a producer plant is a far better proposition.

1st. Because of its greater efficiency in changing heat units in the form of carbon to a combustible gas.

2nd. Because of the simplicity and ease of operation.

3rd. Because of the far lower manufacturing cost.

"OUTSIDE PRODUCERS AT RACINE"

By H. R. Broker, Racine, Wisconsin

[This paper was read originally before the 1922 Convention of the Wisconsin Gas Association. It was published in full in the April 8, 1922, issue of the American Gas Journal.]

Section II—Lower B.t.u. Standard in U. S.

[The Operators' Section did not have sufficient time to investigate the results of lower B.t.u. standard in the various parts of the United States, nor to investigate the possibilities of a still lower standard, as outlined for us to do. This matter will have to hold over until next year.]

Section III—Educating Operators on Reporting Results.

[The main work of this section was to draw up a new form of standard data sheet.]

Section IV—Investigating Coking and Non-Coking Coals.

[There was no report for Section IV.]

Section V—Modify or Revise Standard Data Sheet.

[Two standard forms were drawn up. The first was

called "General Data Sheet" and the second, "Operating Data Sheet." These were explained in detail.]

SECTION VI—Study of Results on Producer and Blue Gas Heating.

[This was only partly covered, and reference is made to Section I under Recent Developments.]

SECTION VII—Instruments on Plant.

[This subject was started but will have to hold over until next year for completion. However, the subject of meters came up for discussion.

This Section recommends that the gas fraternity as a whole do more work with flow meters in order to determine their real value as a means of measuring gas. Too little work has been done by even those who have installed flow meters in their plants.]

SECTION VIII—Investigation of Coking and Non-Coking Coals.

[This work has just been outlined and very little done and must be held over until next year.]

Low Temperature and Carbonization Section

[There were three papers reported by the above Section, the Chairman of which was J. D. Davis, Bureau of Mines, Pittsburgh, Pa.]

LOW TEMPERATURE TAR AND ITS EVALUATION.[1]

JOSEPH D. DAVIS[2]

[The general subject of low temperature tar was briefly reviewed. The characteristics of low temperature tar oils were discussed and the importance of its production in the United States as compared with mixed or partly cracked tars was emphasized.

Primary tar, the urteer of the Germans, was made by distillation *in vacuo* and also by means of superheated steam. The two processes were described and methods of evaluation of primary tars were given.

A red resin was obtained from vacuum tar and was found to possess properties somewhat similar to those of shellac.]

Conclusion

Low-temperature tar may vary considerably as regards yield and character of its constituents, depending on the conditions under which it has been generated. If, for example, it is desired to produce a tar in which the constituents have suffered the least alteration, it is necessary to carbonize at the lowest practical temperatures and to remove the tar vapors quickly from the heated retort, either by evacuating or by circulating inert gases. This procedure reduces the gas yield to a minimum, and results in the production of an inferior semi-coke. Tars generated at intermediate temperatures and distilled at atmospheric pressure, undergo more or less thermal decomposition, with the result that the gas yield rises and a coke dense enough for domestic use is produced.

In the United States it may pay to develop a low-temperature carbonization industry primarily for the production of a domestic fuel with motor spirit as a liquid by-product. Certainly such an industry would effect a conservation of our fuel resources, and tend toward abatement of the smoke nuisance caused by the domestic consumption of soft coal. It would not greatly affect present established carbonization industries. Another possibility is complete gasification of bituminous coal with preliminary carbonization at low temperatures, the tar to be worked up primarily for motor spirit. In any case, the main tar product will probably be motor spirit, and low-temperature tars should be evaluated with this idea in view.

[1] Published by permission of the Director, U. S. Bureau of Mines.

[2] Fuels Chemist, Pittsburgh Experiment Station, Bureau of Mines.

INTERNALLY HEATED RETORTS

CHARLES V. MCINTYRE, Consulting Engineer,
66 Broadway, New York

Necessarily all internally heated processes utilize gas or vapor as the heating medium, and by this they may be readily classified. A classification is given below and under each division are listed various processes that are considered representative of the group to which they belong.

PRODUCER GAS:
- MacLaurin Process
- Bussey Process
- Sutcliffe-Evans
- Mond Process
- Neilson Process
- Ziegler Process
- Messel Process

WATER GAS:
- Tri-Gas-Generator Process

COAL GAS:
- Pritchard Process

SUPERHEATED STEAM:
- Lamplough Process

PRODUCTS OF COMBUSTION:
- Frank Process
- Pintsch Process

[Each process was described briefly.]

CONCLUSIONS

Retorts Internally Heated by Producer Gas

[The most successful processes were said to be of recent German origin.]

Retorts Internally Heated by Water Gas

Every gas engineer is fully aware of the field which is open to a successful process, which can produce a gas of about 400 B.t.u. from raw coal by complete gasification methods without enrichment. The nearest approach made to this bogey is the water gas generator in combination with a low temperature retort, which has manufactured a gas of about 325 B.t.u. together with saleable oil by-products from coal. Further developments along these lines will be watched with interest.

Retorts Internally Heated by Coal Gas

This process is not strictly in the internally heated class, for its heat is applied both externally and internally. It is the only modern process utilizing internal heating in any form which claims to produce a sound coke suitable for metallurgical use. Its usefulness in the coal-gas and coke field is yet to be demonstrated.

Retorts Internally Heated by Superheated Steam

In the writer's opinion, superheated steam cannot be seriously considered as a practical means for convey-

ing heat into a charge of coal, for the reason that the thermal efficiency of such a process would be ridiculously low.

Retorts Internally Heated by Products of Combustion

Of the two examples under this heading, given earlier in this report, one is in an experimental stage and the other, the Pintsch process, has apparently barely emerged into the commercial class.

METHODS OF TRANSFERRING HEAT TO THE COAL MASS IN LOW TEMPERATURE CARBONIZATION WITH EXTERNALLY HEATED RETORTS

HARRY A. CURTIS, Clinchfield Carbocoal Corporation, South Clinchfield, Va.

[The author limited his discussion to externally heated retorts where the heat must pass through the retort wall before reaching the coal mass.

[The Coalite process and several others were briefly described. In these processes the coal is coked in thin sheets at low temperatures.

It was pointed out that stirring the coking mass greatly increases the rate of coking by bringing fresh material continually to the hot retort walls. The stirring of the coal during carbonization has marked advantages, aside from the matter of improving the heat transfer. For example, it gives an even distribution of the volatile matter remaining in the coke as it is discharged, whereas if the coking is done in a stationary coal layer, the coke next the retort wall is "overdone" by the time the reaction has progressed to the coal mass farthest away from the retort wall.

The two most serious drawbacks to stirring the coal during carbonization are, first, the tendency of the coal to coke on the moving parts, such as paddles and paddle shafts, and eventually plug the retort, and, second, the layer of carbon which forms next to the retort wall gradually hardens, filling up the clearance between the retort wall and the paddles or other stirring device, until eventually this hard carbon deposit interferes with the movement of the stirring device.

[It was shown how these disadvantages were done away with in the Carbocoal process.]

Means of Securing Large Area of Contact Between Heating Surface and Coal Mass

It is, of course, obvious that the largest possible area of contact between the retort wall and the coal should be secured. This is one of the underlying ideas in the various types of revolving cylinder retorts which have been proposed. In such a retort the whole lateral area of the retort becomes the heating surface.

Materials Available for Retort Walls

Other things being equal, the best possible heat conductor is ideal material for a retort wall. Of course, other things are never equal. The heat conductivity of a metal is so superior to that of a refractory material, that many retorts of iron or steel have been designed. Not one of these has as yet reached definite commercial success, but it is not unlikely that a metal retort will eventually be used for low temperature carbonization.

[The advantages and disadvantages of carborundum for this purpose were explained.]

REPORT OF THE COMPLETE GASIFICATION OF COAL SECTION

R. G. PORTER, *Chairman*, Philadelphia Suburban Gas & Electric Company, Chester, Pa.

The possibilities of the complete gasification of coal have caught the fancy of the gas manufacturer, especially the operator of small plants—300,000 cu. ft. per day and under. There has been so much interest aroused in this subbject that it behooves us to make a survey of the economic possibilities of this problem. It is essential that we clearly understand the basic principles of carbonization and gasification involved before we can determine just what of existing tried apparatus is suitable and what new apparatus will be required.

[A detailed analysis of the destructive distillation of coal was given. Yields of gas, tar, etc., were explained in their relation to each other.]

Outstanding in all processes must be the necessity of saving intact the oils from coal. We then have our choice.

(A) High B.t.u. gas—oils—coke convertible into gas.

(B) 325 B.t.u. gas—oils—from coking coal—gases hopelessly mixed, or less generally found.
Both high and low B.t.u. gas—oils—from coking coal—gases kept separate.

(C) 200 to 300 B.t.u. gas—oils—from any bituminous coals—gases hopelessly mixed, or
Both high and low B.t.u. gas—oils—from any bituminous coals—gases—kept separate.

(D) Any combination (with resulting economies) of A, B, and C.

Processes (A) and (C) divide the carbonization and gasification into two machines each under separate control. Process (B) is accomplished in one stage.

A possibility which has been offered by several single-stage complete gasification processes is the simultaneous production of two separate gases having very different characteristics and heating values. Some of these processes would produce a rich coal gas suitable for domestic uses under existing standards and a low B.t.u. gas, either blue water gas or a rich producer gas, which would be ideal for industrial plants.

There is no reason why the gas company should not some day furnish the heat (or power) for the economical generation of electricity of their sister utility. The gas plant should then be the source in its district for all power used. If you only considered the combining of gas and electric plants for complete gasification of coal, the economies in cost are at once apparent.

When the day comes that this combination is economically possible, when low B.t.u. gas can be furnished to a power plant as cheaply as coal—the day of the complete gasification of coal will have arrived, for the reason that under these conditions, distribution costs will be at a minimum. As long as the cost of gas distribution remains what it is today we shall have to hold in check our enthusiasm for the panacea offered by the complete gasification of coal. The cost of production is easy. The delivery charge high. There is as much need today to study reductions in the cost of distribution of gas as there is to study costs of gas making.

[A detailed description of the Tully Gas Plant, the J. U. McDonald Process, and of the Doherty Complete Gasification Plant at Toledo, O., was given.]

REPORT OF THE BUILDERS' SECTION

J. H. Taussig, *Chairman*, U. G. I. Contracting Company, Philadelphia, Pa.

During the past year, very few new carbonizing plants were contracted for. Judging from the inquiries received by the various companies, next year should be a big year for the builders of carbonizing equipment. This will be accelerated when the price of oil rises, which it is sure to do when general business improves.

Another thing that will increase the demand for coal gas apparatus will be cheaper coal with the lowering of mine costs and freight rates.

Your Committee believes that it would be of advantage to gas companies to figure on building plants within the near future, if they intend doing so within the next two or three years, because there are indications of prices increasing and any delay will mean increased cost of plant.

[A number of reports were submitted by manufacturers of carbonizing apparatus. These reports were as follows:]

DESCRIPTION OF THE ROBERTS OVEN

H. V. Patterson, American Coke & Chemical Com-Company, Chicago, Illinois.

[A description of the plant of the St. Louis Coke & Chemical Co. at Granite City, Illinois, was given. This plant operates 80 Roberts ovens.

GLOVER-WEST VERTICAL RETORTS—CONTINUOUS TYPE

E. G. Blackwell, West Gas Improvement Company of America, Inc., New York, N. Y.

[The installations of Glover-West Vertical Retorts—Continuous Type, made at Montreal, Vancouver and Victoria, were briefly described.]

DESCRIPTION OF CARBONIZING APPARATUS OF THE ISBELL PORTER COMPANY

J. S. De Hart, Jr., The Isbell-Porter Company, Newark, N. J.

[A short description of this apparatus was given. No radical changes were made during the past year in the design of the Woodall Dickham Continuous Retorts manufactured by the above company.]

DESCRIPTION OF THE KOPPERS COMPANY OVENS

H. J. Rose, The Koppers Company, Pittsburgh, Pa.

[The new type of Koppers Company combination oven was described. Its advantages,—reduced cross-section of horizontal flue and increased efficiency of regeneration,—were explained. Operating data on the new oven was given. A description of various new Koppers installations was also included.]

DESCRIPTION OF CHARGING AND DISCHARGING MACHINES OF THE BARTLETT HAYWARD COMPANY

Henry L. Underhill, The Bartlett Hayward Company, Baltimore, Md.

[The charging and discharging machines, made by the above company, were described in detail.]

CARBONIZING APPARATUS OF THE GAS MACHINERY COMPANY

W. E. Steinwedell, The Gas Machinery Company, Cleveland, Ohio.

[This report included a description of power-driven pressure regulators for controlling suction on gas retorts and ovens.]

DESCRIPTION OF THE CARBONIZING APPARATUS OF THE PARKER-RUSSELL MINING & MFG. CO.

Leigh Wickham, The Parker-Russell Mining & Mfg. Co., St. Louis, Mo.

[The report contained a description of the hot primary air system for recuperator gas benches. Various new features of design were mentioned.]

DESSAU VERTICAL COKE OVENS

W. Schultz, Chief Engineer of The Roessler & Hasslacher Chemical Co., New York, N. Y.

[A new development in the Dessau coke ovens was explained to consist of the conversion of the former intermittent Dessau vertical retort ovens into vertical chambers of the coke oven type.]

COAL CARBONIZATION PLANT AT LOWELL, MASS.

Vernon Baker, Chief Engineer & Vice-Pres., Russell Engineering Co., St. Louis, Mo.

[A description was given of the reconstruction of the coal gas plant of the Lowell Gas Light Co.]

DESCRIPTION OF NEW SEMET-SOLVAY BY-PRODUCT COKE AND GAS OVEN PLANTS

C. R. Bellamy, Semet-Solvay Co., Syracuse, N. Y.

[The two new by-product coke oven plants of the Semet-Solvay Co. were described in detail.]

REPORT OF THE U. G. I. CONTRACTING CO.

J. H. Taussig, The U. G. I. Contracting Company, Philadelphia, Pa.

[The company's new work at Rochester, N. Y., Racine, Wis., Providence, R. I., and Philadelphia, Pa., was described.]

Gas Problems Summarized by President in Keynote Speech

Sees Greatly Increased Load For Heating Purposes As a Condition of the Future.

The keynote speech of the convention was delivered yesterday morning by the retiring president of the American Gas Association, Dana D. Barnum, of the Boston Consolidated Gas Company. The special problems of the past year and how they were or will be solved were entertainingly set forth, special emphasis being laid upon the methods of progressively dealing with a progressively expanding volume of business. Mr. Barnum said:

It is customary to say in regard to the Gas Industry that there never was a time when there were so many problems before us. No doubt this is true, for with the broader development of our business so do our problems increase. This is as it should be, for with increased problems come increased opportunities and our opportunities at present and in the near future are very great indeed.

History has repeated itself recently in the always important matter of raw materials. Periodically we go through the throes of a shortage of some raw material and generally the serious trouble comes when we least expect it. This should teach us that the possibility of cessation of supply is liable to come at any time and the present situation does not indicate that there will be any greater stability nor any less difficulty during the next few years than we have had in the past. It is our duty to be prepared for such contingencies as we have experienced or been threatened with during the past ten years.

Storage of Reserve Supplies

Gas Companies with the responsibility of rendering to communities an essential service should give serious thought to the permanent storage of reserve supplies of coal and oil. The interest charges on the investment so required are an insurance, which rightly should be included in the price of gas, as it is for the benefit of those who pay it. In the storage of oil a great many companies are handicapped in not being able to build tanks in the locality where their works are situated either because of difficulty in getting permits to build or because of lack of space. I would commend for the consideration of such companies the building of tanks and storing of oil in some place that is accessible either by rail or water in some location where the land can be purchased cheaply, permits obtained easily, and where the works can be supplied in time of shortage by barge or truck when all other supplies fail. In the storage of coal, companies should carry large permanent reserves and replenish them in the summer. This is a national need and good policy for the consumer. With the facilities for handling coal by machinery which are available the cost of rehandling is not large. It may be argued that coal deteriorates in storage, but I believe the facts will show that a pile of coal deteriorates only on the surface or for only a few feet in and that the net loss is a small additional expense to the carrying charge.

The key to the future of the gas industry is economical, efficient and low cost generating of gas. Experiments are going on today which give those who are working on them much hope for a material improvement in this department. At the present time it is impossible to say how far this work will go. Any company in need of more generating capacity will do well to resort to increasing their capacity with inexpensive equipment for the present and wait to see what the result will be of those new processes during the next year or two. Personally I have great hopes of decided improvements in the near future.

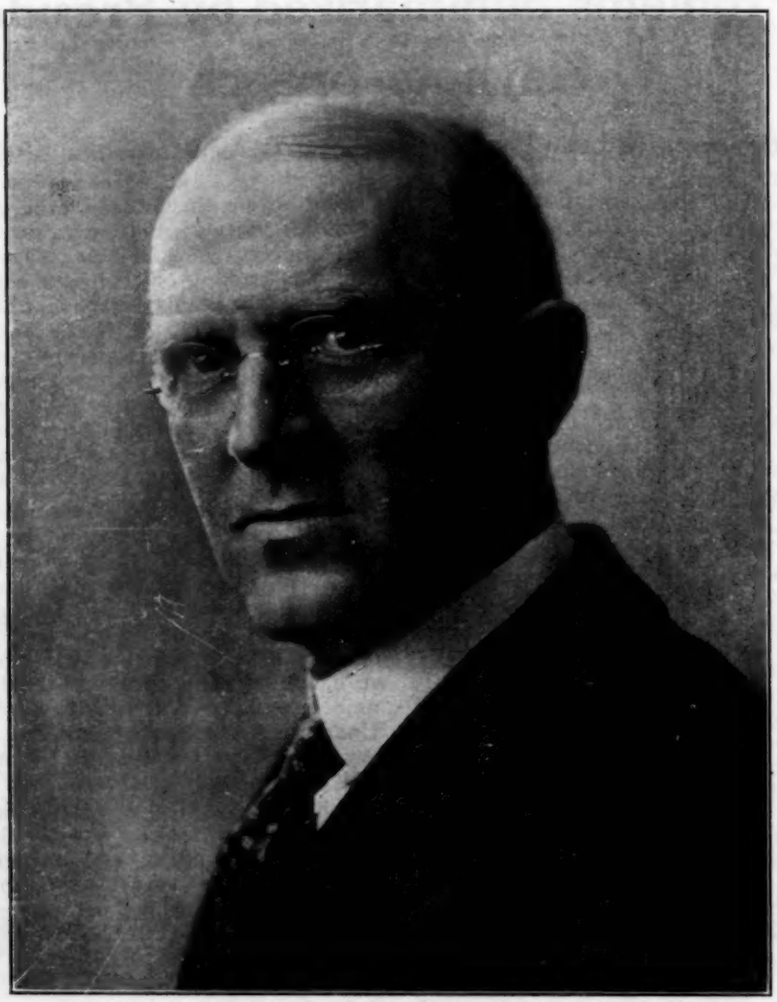
With the possibility of decreased cost of gas in the holder we can all easily see some of the problems that will arise. Undoubtedly we will have to adjust our minds to very much larger volumes. Our distribution systems have as a rule been designed and built to distribute gas at a comparatively low pressure. These systems at a somewhat higher pressure will in general take care of much larger volume, especially if the load is reasonably uniform. Undoubtedly a greater problem will present itself beyond the street mains,—in the supply pipes, meters and building piping.

I have heard many gas engineers say they do not wish a heating load as it would be too expensive to take care of during certain periods of the winter. I do not believe we are going to have any choice; the load is coming and we have got to take care of it. It is one of our problems and one of our great opportunities.

Service Is the Best Salesman

Our industry since the war has been principally interested in increasing sales. There are many lines of thought as to the value of advertising, salesmanship, soliciting, campaigning, etc. To my mind the most effective salesmanship is in service. Of course the word "service" covers a multitude of activities. It begins when the customer first comes and applies for a meter and it never ends; but in all our relations with our customers there is one factor that has been neglected by a great many gas companies during the past few years.

When utility corporations began about twenty years ago to enlarge and consolidate, making large companies by combining several small ones, they obtained the advantage of combined operations in manufacture, distribution and finances, but they neglected one of the most important elements in all commercial business, that is the personal element between the proprietor and customer. It behooves the utility today to reintroduce into its relations the personal element by education and training of its employees, the factor which has built up so many prosperous and successful concerns in this country and without which no undertaking will ever be success-



D. D. BARNUM,
Retiring President

ful; and the foundation of this personal relation between proprietor and customer is courtesy.

The New Way vs. the Old

The above remarks bring us to the question of education and training of employees, which, I believe, is the key to our successful operations and dealings with the public. Again I refer to the old fashioned way of doing business and the personal relation between the employer and employee. When companies were combined and large corporations formed, operations were conducted by rules and regulations laid down by executives, heads of departments; superintendents and foremen had little or no leeway in dealings with the people under them. Naturally labor unions, grievance committees, delegations and walking delegates resulted.

The average workman wishes to consider himself an individual and not one of a mass. He wishes his case to be considered apart from others. His desire is to go to the man directly over him and discuss his particular case and get a decision then and there. Small companies with an executive who knows all the men, has the authority and is in touch with each individual and can settle and take care of cases as they arise, seldom have serious labor troubles. As General Grant has said, "The best government is autocratic when the autocrat is a good man."

I believe that industry as a whole has made the grievous mistake of not giving more responsibility and more authority to superintendents and foremen. They have as a rule tied him hand and foot in handling their men. In most industries, and particularly the gas business, the foremen are men of long years of service and are tried and true and are able to handle the men under them if given the authority. Of course certain policies must be laid down by the management and conferences of the superintendents and foremen are necessary in order that their decisions go along parallel lines. One of the principal factors in giving superintendents leeway of action is the provision for advancement of men who show

merit, and the main feature in this provision is graduated scales of wages, depending on length of service and upon skill of performance, and in cases where I have known this to be tried it has resulted in very much improved morale.

What Was Done in Boston

I am going to yield to the temptation of citing one of our own experiences along this line. A year ago we made an arrangement with Boston University to conduct classes for all of our employees who in any way came in contact with the public. Over four hundred of our employees took this course, which consisted of two hours a week for eight weeks and the classes were held in the daytime, the employee being relieved of his duties so that he might attend. Business principles and business ethics, the gas company's place in business and its relation to the community, salesmanship, courtesy, good will, good workmanship and co-operation are some of the outstanding subjects included in the course, the whole purpose of which was to build the foundation for better business by contributing our part toward the building of better employees.

Our business in all its branches needs humanizing and we believe that educational work of this character will go a long way to accomplish it, and we are so gratified with the results so far attained that this winter we expect to have an advanced course which will include salesmanship, economics, industrial relations, efficiency and economy of operation, as well as a lecture on the Constitution of the United States, which we believe everybody ought to know more about. We feel that education begins at home and that in giving our employees this opportunity we are providing the best means for educating our customers and the public and putting our business more solidly upon the foundation of public understanding and good will.

First 100 Years Literally the Hardest

The industry today is approximately one hundred years old. The common expression is "the first hundred years are the hardest." Certainly it started wrong in the gas business in regard to the question of rates. We are now beginning to see daylight in a scientific basis of charging for gas, and I cannot do better in discussing this subject than to quote an article by R. B. Brown, published in the Association Monthly for August, in which he says:

"No sound basis for the future development of this great industry can be established which does not include a thorough appreciation that the cost of service must be reflected in the rates granted—an opportunity must be given to adjust commercial or quantity rates without an undue amount of red tape being unwound —enough latitude must be provided in the regulation of quality of gas furnished to allow of modification of processes and use of materials not available under most of the existing regulations, and finally, recognition must be made of the principle that the best talent and initiative cannot be kept active in the service of this industry under any system of returns which deprives the worker in all ranks, as well as the investor, of any reward for better than usual operation and service to the public."

The advance the gas business has made in the last four years has to a very large extent been fostered, helped and promoted by the work of this association. It has been operated efficiently, economically and effectively and I wish to take this occasion to say that notwithstanding its excellent organization and the valuable personnel of its headquarters staff, great credit is due to the energy, personality and ability of its Secretary-Manager, Mr. Oscar Fogg. It gives me pleasure to say this, not only as a personal friend of Mr. Fogg, but also as retiring president of your association.

Gas Publicity: How it is Handled

A. A. Higgins Groups Under Eight Heads the Concerted Efforts Now Being Made.

A short and pithy report on the association's activities in the direction of publicity and advertising was presented by A. A. Higgins of the Providence Gas Company, Rhode Island, chairman of the committee appointed to direct and foster the association's relations with the public by means of the printed word, the moving picture and the illustrated lecture. Mr. Higgins said:

The Publicity and Advertising Section has again enjoyed a year of splendid support from the industry with the result that we have been able to accomplish most of the things we set out to do and can now look forward to the time—and it will not be far off—when our industry will be held in universal esteem by the gas consuming public due to a better understanding of our aims and objects. We have made the first leg of a long journey.

This year's work has been marked by several outstanding features which deserve mention. Briefly they are:

A more intimate contact with the public established through the effective use of a large number of newspaper publicity outlets.

Frequent talks and illustrated lectures on the gas business before audiences largely composed of gas consumers, resulting in a clearer understanding of the utility's function in our domestic and industrial life.

The employment of experienced newspaper men to handle public relations work. This is a movement yet in its infancy; it should be greatly encouraged.

The selling of securities to customers, which is having most beneficial results in bringing about a better understanding of the fundamentals of the utility business.

The large amount of newspaper advertising contracted for and used with marked effectiveness by the largest number of gas company and appliance makers in the history of the industry, illustrating the industry's appreciation of this modern form of selling.

The continual expansion of state committees on public utility information, with eighteen such com-

mittees in operation and their work reaching into 26 states of the Union—a movement of vital consequence to the industry.

The use of motion pictures to carry the gas message direct to the public. It has been so carried with great success.

Better quality of the direct-by-mail literature; better sales letters and a quickened commercial sense which has placed the industry on the alert and made it aggressive.

The recognition on the part of our industry that we have in our own employees an excellent medium for distributing information and the training of employees to properly represent us.

The foregoing are the "tools," so to speak, that the industry has at its disposal. There is no apparent necessity of adding new ones. If we will continue to recognize the importance of newspaper and magazine publicity favorable to the industry and strive to increase the repetition of such publicity; if we will continue to use paid advertising in greater volume and strive to make it carry more effective commercial and good-will messages; if we will meet the public openly and tell them the facts, by word of mouth, by means of lectures and motion pictures—if we will do these few things alone, and do them conscientiously and persistently, we will forever end misunderstanding and prejudice.

During the past year we have prepared and distributed several hundred thousand copies of educational pamphlets and we will keep this good work up because we have ample proof of its success. We have inaugurated a new advertising service of most promising possibilities, at a time when the industry is making new advertising history for itself. We have made a new and better film; prepared new material for lecture purposes; made our national convention a source of news for the entire country and have established relations with several news distributing agencies which can do us great good. Altogether, there has been a concentration of effort along a certain few lines in order that we might achieve what we have had in mind at the beginning; and I am glad to say that the industry is showing an interest in our work which is sure to bring rewards.

At the present moment we are endeavoring to build up an organization of public utility advertising men as a unit of the Associated Advertising Clubs of the World, and if we are successful in this, the gas industry will find itself on an advertising par with the foremost industries of the country.

With the formation of more state committees on public utility information we will see our work broadened and supported in sections of the country where it is much needed at this time. The meeting of State Directors at this Convention shows how closely the industry is tying in with this national movement and it should be supported generously throughout the country.

As I have stated before, we have finished the first leg of a long journey, and this is no time to relax our efforts. The Publicity and Advertising Section asks for your co-operation and in return it wants you to ask for its help. Let's all get together during the year ahead and put the proper emphasis on our public relations work.

Loose Leaf Ledger Accounting and How it Works

W. A. Doering of Boston Submits Preliminary Report on Systems Now in Use,

Following is an abstract of the report of the Consumers Accounting Committee of the American Gas Association, W. A. Doering, of Boston, chairman, together with a brief description of the loose ledger system of bookeeping used by a majority of the companies of America.

The Committee on Consumers Accounting, appointed to investigate the accounting systems now in use, with the possibility of bringing to the industry something tangible which eventually would produce a saving in consumers accounting, reported the field of operation so great that it was impossible to complete the work in one year. The Committee therefore presented only at this time the systems now in use, without attempting to advocate any individual type.

In order to properly present the findings it was decided to divide the work into two sections, one covering the larger companies and the other for smaller ones. The systems now in use by the larger companies throughout the country were found to be the covering bound book systems, the loose-leaf ledger systems, the card ledger system, and the Baltimore system of bookkeeping without books.

Customer Accounting in the Smaller Utility was the subject of a special division of the report.

Statistics were prepared, using the returns sent in by gas companies having:

Less than 10,000 Accounts.	Class A Companies
From 10,000 to 25,000	Class B Companies
25,000 to 50,000	Class C Companies
50,000 to 100,000	Class D Companies
More than 1,000,000 Accounts.	Class E Companies

The statistics disclose several items of interest. The total number of returns received are two hundred and thirty-three, representing forty-two states, British Columbia, Ontario and Porto Rico. The states which failed to turn in reports were New Mexico, Arizona, Oklahoma, Arkansas, Montana, Idaho and the District of Columbia.

Of the total number of companies reporting, sixty-two of these companies report no prepayment meters in use. Another interesting fact is that a very small percentage of the companies combine the Merchan-

dise and Gas Accounts on the same ledger. It is very apparent that the majority of the companies reporting are using loose-leaf ledgers. A very small percentage of the companies reporting, are using machines for bookkeeping purposes.

Forty-seven of the companies, or 20 per cent, are using machines for billing.

One-half of the companies reporting have continuous reading of meters.

Two of the companies reporting have the consumers call for their bills.

The experience gained by the Committee and the broad scope of the work led us to the recommendation that this Committee or a similar one should be continued next year.

Individual Bookkeeper Plan

An outline was given of the loose-leaf ledger system of The Peoples Gas Light & Coke Company of Chicago, operating what is known as the "individual bookkeeper" plan, each bookkeeper being held responsible for every phase of the work done on every account in his ledger.* Bookkeepers handle from 4,800 to 5,600 accounts which are arranged in two volumes of loose-leaf ledgers.

The consumers' accounts are divided into twenty-one (21) groups, or districts, thus making about an even number of accounts fall due on each working day of the month (excepting Saturdays).

There are one hundred and forty-six ledgers and each have from fourteen to eighteen of these districts. Each sub-district represents from two hundred and fifty to four hundred meters.

Bills are delivered six days after meters are read and customers are given a period of ten days after date of delivery in which to pay the net amounts of the bills. If bills are not paid within this ten day period, an additional charge of ten cents per thousand cubic feet is made.

Seven days after the discount period has expired, bookkeepers draw off lists of all delinquent accounts and these lists are sent to the Collection Department for attention.

Gas Ledgers

These ledgers are made up of loose leaves. Each sheet provides for the accounts of eight customers—that is, four accounts on a page, for four years. Near the close of every fourth year, new ledgers are written by the bookkeepers. The following information is transferred from the old ledgers to the new: Customer's street address, floor which meter supplies, name of customer, contract number, record of deposit, meter number and size of meter, and date when meter was set, last reading and date thereof, amount of gas used during previous month; also ledger, page, and folio of customer's account on the old ledger.

Meter Reading Books

Meter Reading Sheets are printed by the Addressograph Department once every four years. The Addressograph imprint shows the customer's street address. the floor meter supplies, the customer's name, and the numbers of the ledger, page, and folio of this particular customer's account. Bookkeepers fill in the number, size, and location of the meter; also the date and index of the last reading.

The meter reading sheets are then assembled into books according to Meter Reading Routes, which correspond with the sub-districts in the ledgers.

Meter readers enter the readings of meters and dates of readings, and then return the books to the main office at night. Any readings that could not be obtained are drawn off by the readers on "Missed Statement" sheets and sheets are sent out the following day with meter readers who have books in adjacent territories.

Once each month these meter reading sheets are sent to the Meter Reading Department and are put through a machine which, by means of a right angle knife, removes one reading, thus leaving only the last meter reading. The Illinois Commerce Commission ordered this routine installed for the purpose of making it difficult for meter readers to report "estimated" or "curb stone readings."

Meter Reading Books are sent to the Bookkeeping Department the evening of the day that they are completed.

Entering Meter Readings in Ledgers

When route books are received from the Meter Reading Department the bookkeepers enter in the ledgers the dates of readings, the readings, the cubic feet of gas consumed, and the net amounts of the bills. At the time readings are being entered the bookkeepers are required to watch for accounts that indicate **over** or **under**-readings, and when found they must send out the necessary verification tickets to assure that accurate bills are sent to customers. They must also, at this time, issue "Meter Inspection and Test" tickets for all meters that show decreased consumption, or that show consumption in excess of their rated capacity, and order meters removed that have been out of service for six (6) months or more. When this operation is completed the meter reading books are sent to the Billing Department.

Billing Department

Bills for all routes due to be billed on a given day are sent from the Addressograph Department to the Billing Department one day before the billing date. These routes of bills are ararnged in exactly the same order as the meter reading sheets. The billing is done by Burroughs Subtracting machines which print the dates and the last two readings. The machines automatically make the subtraction and print the consumption in hundreds of cubic feet.

The bills are then sent to a force of clerks who, by means of rubber stamps, place the Gross Amount, the Discount, and the Net Amount of the bills on the two portions of the gas bill—the receipt portion, and the company's coupon record of payment.

Bills and Meter Reading Books are then sent to the bookkeepers.

Merchandise Charges Added

At this point merchandise charges are added to the gas bills by bookkeepers. (See description of Merchandise Accounting System on following pages.)

Bookkeepers then compare each bill with the account in the ledgers and add all "previous" and "final

* Prepared by P. D. Warren, of Chicago.

charges" to current bills. The bills are then returned to the Billing Department.

The Register or Revenue Sheets are made by the use of Burroughs Adding Machines. This operation consists of listing and adding the cubic feet and net amounts of the bills. The accuracy of this work is proved by eliminating minimum charges and by the use of a known factor determining that the cubic feet registered agrees with the total of the net amount of bills shown on register sheets. Bills are then sent to the Bill Auditor.

All bills are examined to determine that they are complete in every detail, that charges or credits have been added or subtracted correctly, and that no alterations have been made on the bills. The bills are then sent to the Bill Delivery Department.

Bills Delivered

When a complete district of bills has reached the Bill Delivery Department, the bills that are to be mailed (about 1½% of total) and those that are to be delivered to special addresses, are taken from the routes and the district is then rearranged into routes suitable for bill delivery purposes. The following day the bills are delivered by messengers to the customers. This completes the billing operations and brings us to the work of collections.

Current and **delinquent** bills can be paid at any of our thirteen branch stores or at the main office. **Bills not past due** can be paid at the branch stores, main office, or at any of the two hundred and fifty sub-station agents of the company, or at any agency of the American Express Company.

A coupon is attached to each bill. These coupons are cut off when bills are paid and are collected at intervals during the day and forwarded to the Coupon Department.

Daily Cash Receipts

The coupons collected during the day are listed in the Coupon Department against each receiver and by 10:00 a. m. the following day the receipts for the previous day have been balanced. The coupons are then sorted into ledger and district order, and by the use of Burroughs Listing machines, the "Cash Sheets" are written up for each individual ledger. These sheets show the ledger number at the top and the page and folio in the left margin. The cash is distributed into three columns—Net Amount, Discount, Merchandise. The total of these three columns combined for all ledgers must equal the total receipts of the day. This work is completed the day following the receipt of the cash and at 8:30 the second morning the sheets are sent to the Control Clerk in the Bookkeeping Department, who charges each ledger with the totals as shown on the cash sheets and distributes the sheets and coupons to the individual bookkeepers.

Before beginning to post payments the bookkeepers check the coupons against the cash sheets to determine that they have a coupon for each entry and that the Coupon Department has made a correct distribution of gas, discount, and merchandise items. They then post from the coupons to the ledgers, stamping each item paid with a dater, which shows the month, day, and year of payment. The amount of cash posted to each district is entered on a recapitulation sheet and coupons and cash sheets are filed.

District Balancing

Six days after the discount rate has expired for a district and one day before the collection book is drawn off, the district is balanced.

This is done by using the following method:

Outstanding Last Balance	$285.44	Cash Last Month .....$	152.45
Regular Sales ..	1,129.81	Cash This Month	996.80
Miscellaneous Sales	24.00	Allowances	5.00
Additions	10.00	Deductions	5.00
		Outstandings ...	290.00
	$1,449.25		$1,449.25

The "Outstanding Last Balance" is taken from the previous month's balance sheet; "Regular" and "Miscellaneous" sales are taken from the Register Sheets. "Cash Last Month" and "Cash This Month" are taken from the Daily Cash Distribution Sheet. Outstandings are obtained by listing all unpaid items, as shown by the gas ledger, for the particular district.

At the end of a calendar month each bookkeeper accumulates the total sales by adding the sales as reported for each district.

This figure is added to the previous outstandings and the total of these two sets of figures must equal the amounts reported as "Cash Collected This Month" and Present Outstandings."

Example

Outstanding Last Balance	$12,445.07	Collected This Month	$13,933.70
Amount Receivable This Month	14,479.70	Present Outstandings	12,991.07
	$26,924.77		$26,924.77

The general balance is obtained by combining all the figures reported on the individual monthly balances. This is the record that is sent to the General Accounting Department and from which its figures are compiled.

Seven days after a district is past due, bookkeepers draw off, on loose leaves, a list of all open accounts unpaid. These sheets show the ledger, page, folio, district, customer's name, address, floor supplied, deposit, gross amount of bill, amount of discount, and the number of times customer has been delinquent. These sheets are then forwarded to the Collection Department for attention.

This completes the work in which the bookkeeper is involved in handling the regular billing, collection of the money, balancing and reporting the necessary figures to the General Accounting Department.

Application Department

All requests for service are received by the Application Department. This includes main extensions, new meters, turn-ons, cut off, etc. Such requests may

be made by mail, telephone, in person at our main office or branch stores, or to solicitors.

Regardless of where the orders originate they are sent to the Application Department and put through the regular routines before being sent on the street for execution.

Files are maintained showing the size and location of all mains, services, and meters. Another file is kept showing all buildings in course of construction. By means of these files all requests for a supply of gas can be immediately referred to the proper departments.

Applications for gas are taken on either duplicate or triplicate forms. The duplicate form is used if orders are signed by customers at the time application was made. If orders are received by telephone or mail, which means they are unsigned, the triplicate form is used.

After passing through the necessary routines to determine what departments they are to be referred to, the signed orders are separated into two groups: the Work Tickets going to the Executive Department, and the Contracts going to the Pending File as a check against the work tickets being returned.

Unsigned orders are handled in the same manner, except that the contracts are attached to the work tickets, so that customers' signatures can be obtained, and the third copy (Form No. 6B) is sent to the Pending Files.

Cut-Off orders are issued in duplicate, both copies are referred to the Meter Record File, where they are checked for accuracy as to addresses, names, and locations. Meter numbers are entered on the tickets and the originals are sent to the General Order Department for execution, and the duplicates are sent to the Pending File.

When the orders are returned completed, the Pending File is cleared—contracts are sent to the Credit Department and Duplicate Cut-Offs are filed. The work tickets are forwarded to the Bookkeeping Department.

When customers move from one address to another, the applications for the new addresses show the previous addresses. Representatives of the Credit Department make references to the ledgers and from the customers' records, as shown at the previous addresses, and recommend accordingly either that applications be approved without deposits, or indicate amounts of deposits to be requested.

Collection Department

Collection work is divided into two groups, viz.—Current Collections and Final Bill Collections. Current delinquent accounts are received daily from the Bookkeeping Department and are made into routes. Collectors call in person on the customers that are in arrears and, if bills are not paid at time of calls, notices are left informing customers of the amounts due and requesting that payment be made before a given date. The type of notices given customers is based on the previous records for prompt payment.

Perhaps it would not be out of place to call attention to the fact that it is almost impossible to draw a true comparison between systems. Some of us are very egotistical and believe our systems are perfect. Others take the reverse attitude and seem to think that because they know the shortcoming of their own systems and don't know those of the other fellow's, that his is perfect and will operate successfully with little or no attention from the directing head. Both of these attitudes, of course, are wrong.

We must be progressive and be ready to let the other fellow "sell" us his ideas, if they will produce either better results or lower costs, or both, than our own ideas are producing. However, too much care cannot be used to determine, in advance of a costly change, that our condition as to labor, working hours, public sentiment, the attitude of regulatory bodies, and the policy of our management can be and have been compared in a fair manner, and that we are sure that the system that is operated successfully and at a low item cost in Seattle, Washington, can be operated just as successfully and at as low an item cost in Jacksonville, Florida.

Sometimes I think that perhaps we give too much attention to so-called systems. In the gas business we all have about the same problems and the same amount of work to accomplish. We must read our meters, render our bills, collect our money, and please our customers.

Problems Are Identical

Just how we perform these operations certainly is important, but is it not just as important to select the right person for a particular job—to train him properly in his work—to teach him the gas business—to pay him enough so that he will want to stay in the business and to promote him as rapidly as his progress and conditions will permit? I believe that a department full of men employed under such a plan and operating the poorest system in use in any gas company in the country will produce more and better results than can be obtained by installing the best and most modern system devised, and operating it with men who are not fitted for, or interested in, their work, men who are clock watchers, idlers taking all they can get and giving as little in return as possible. Your ledger clerk of today, if properly selected, becomes your accountant, or auditor, of tomorrow. Does it not seem that the proper selection and training of our employees needs some of the attention that has been given to discussions of systems?

REGULATING PUBLIC UTILITIES

"The muniicpality is in no position to deal fairly with utility companies and to weigh impartially the merits of an issue between citizens and service corporations. Honest thinking men and women will readily admit that if the people could have their way they would not give much consideration to the companies that served them.

"But these advocates of municipal control overlook the fact that by the constitution the State is and must at all times be the basic jurisdictional unit.

"The *Commercial* is as strongly against the conscienceless public service corporation as it is against the conscienceless labor union agitator and political blatherskite. But it realizes, as some newspapers and many people do not, that our public utilities, which promote the general welfare by administering to our necessities and comforts, must be fairly treated if they are to continue to serve our people adequately and economically."—*Buffalo Commercial.*

Light—Warmth—these be as prince and page in the court of speech. They rank with Food, Sleep; they stand with Life, Love. All that is sweet, all that is clean, all that is strong, all that is pure, all that is hale, leaps in man's blood and brain at the sprite like touch of the words on his ear.

Gas bill—it proves the worth of the tongue we speak that it should hold fair names like Warmth, Light, guard and nurse of Life and Love, and, too, the harsh hurt of Gas Bill.

True gas bill means warmth, light. Yet who of the hosts whose day is cheered at its start, whose skins are cleaned, whose homes are warmed, whose food is cooked, whose days are made glad, whose nights are made bright, all by gas, takes thought that Gas Bill means that we pay a small price for the joys we gain.

But time and oft it is a task to make them thus take thought, a task to which the best of us have set our best wits. But it is not a task which holds no hope, as we have come now to know; and we know now that we shall do more in this way as time goes on. It may be that as time goes on such names as CONSOLIDATED GAS HEATING & ILLUMINATING COMPANY will give way to HOME WARMTH AND LIGHT (Inc. if it must be) and the home men and their wives will own the shares and in place of gas bills there will be glad notes saying:

"See (and take joy in the thought) how much warmth and heat you had last month. We have still more for this month, all you can need for this month and the next—Warmth, Light."—S. P.

American Gas Journal

SIXTY-THIRD YEAR

Published Weekly by American Gas Light Journal, Inc., 53 Park Place, New York, N. Y.

Daily Edition, published in Atlantic City, October 24, 25, 26 and 27, 1922.

ELBERT P. CALLENDER, Pres. S. G. KRAKE, Vice-Pres.-Treas. A. M. GLEASON, Sec'y.

WALTER A. FAIRSERVIS, Editor

CHARLES S. MYERS, Field Representative.

Editorial Offices: Atlantic City, Chalfonte Hotel. Telephone 4444, Extension 54.